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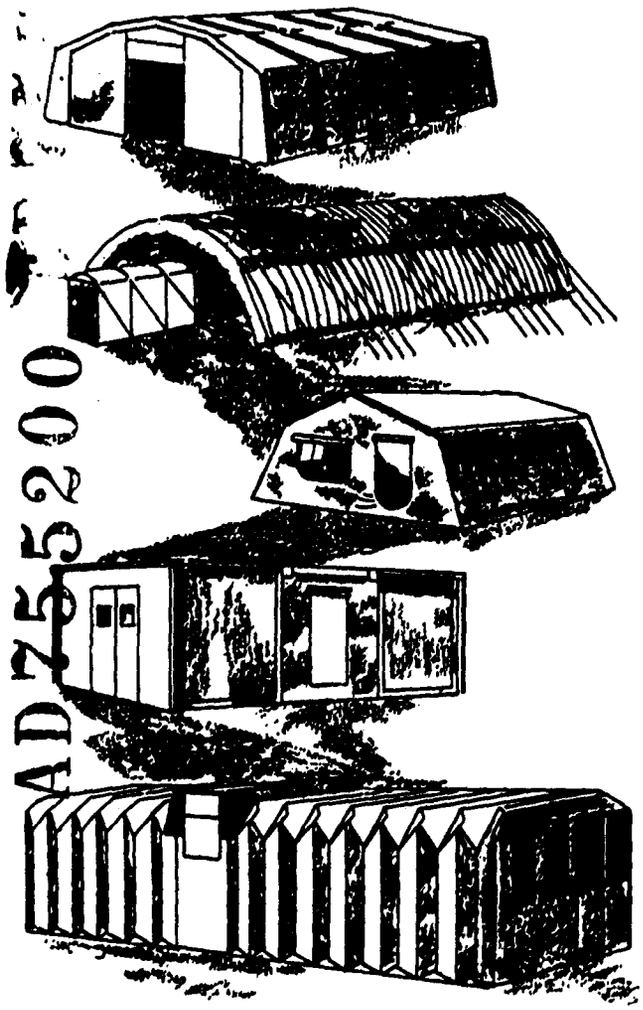
REFERENCE MANUAL ON SHELTERS

Army Natick Laboratories
Natick, Massachusetts

January 1972

REFERENCE MANUAL on SHELTERS



- U.S. Army Natick Laboratories
- U.S. Army Mobility Equipment Research & Development Center
- U.S. Army Electronics Command
- U.S. Army Aviation Systems Command
- U.S. Army Tank-Automotive Command
- U.S. Army Cold Regions Research & Engineering Laboratories
- U.S. Army Missile Command
- U.S. Air Force
- U.S. Marine Corps

UNITED STATES ARMY
NATICK LABORATORIES
Natick, Massachusetts 01760

JANUARY 1972

FOREWORD

This manual was prepared by the Shelters Branch of the Shelters and Organizational Equipment Division, General Equipment & Packaging Laboratory, U. S. Army Natick Laboratories.

The manual describes all types of standard and experimental shelters, tents and transportable sheltered vans which are being developed by different elements within DOD, to meet known or potential requirements. Included also are shelters that are in the concept stage and commercially available shelters which show promise of military adoption.

The purpose of this manual is to familiarize all DOD elements with the nomenclature, characteristics, purpose, etc., of the different types of shelters that are presently available. It is thought that the basic technical data provided for each shelter will be not only useful reference material, but will also be of assistance to other agencies in determining and selecting a shelter to meet a particular need. Further, it will serve to avoid the expenditure of unnecessary engineering or developmental funds and prevent duplication of shelters among the services. It is intended that this manual will be updated on a regular basis and serve to keep all DOD elements abreast of the latest developments in shelters.

This manual concains photographs and descriptions of shelters submitted by the Air Force, Marine Corps and the following Army agencies - TACOM, AVSCOM, ECOM, MERDC, CRREL, MICOM and NLABS.

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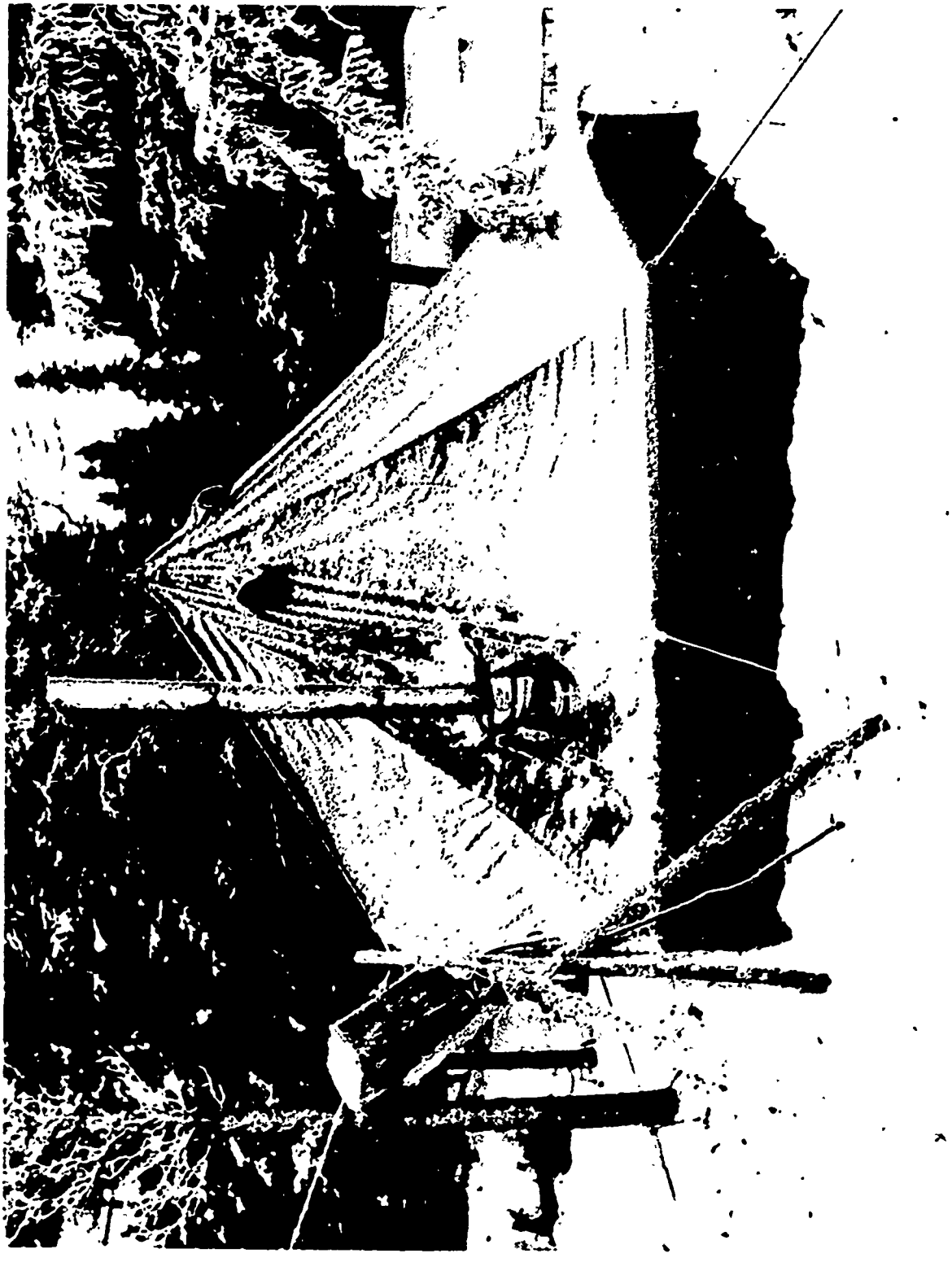
U.S. Army Natick Laboratories



1. Name of Shelter: Tent, Hexagonal, Lightweight, M-1950

2. Type of Shelter:

Non-Rigid
Pole-Supported

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

This is a six-sided, pyramidal tent fabricated of 8.5 oz. wind-resistant sateen and supported by a telescopic pole at the center of the tent. A stovepipe opening is located in one of the sides near the eave. A fire-resistant liner is provided to insulate the tent and prevent frost from falling on the occupants. Each side of the tent measures 6'7". It is 8'6" high at the peak with a wall height of 2'. The floor area is 113.2 sq.ft. and the complete tent weighs 56 pounds. The tent can be pitched by 5 men in 15 minutes and struck by 5 men in 10 minutes.

6. Concept of Use:

This is a special purpose tent intended to provide shelter for troops (5 men) operating in extremely cold or cold-wet areas.

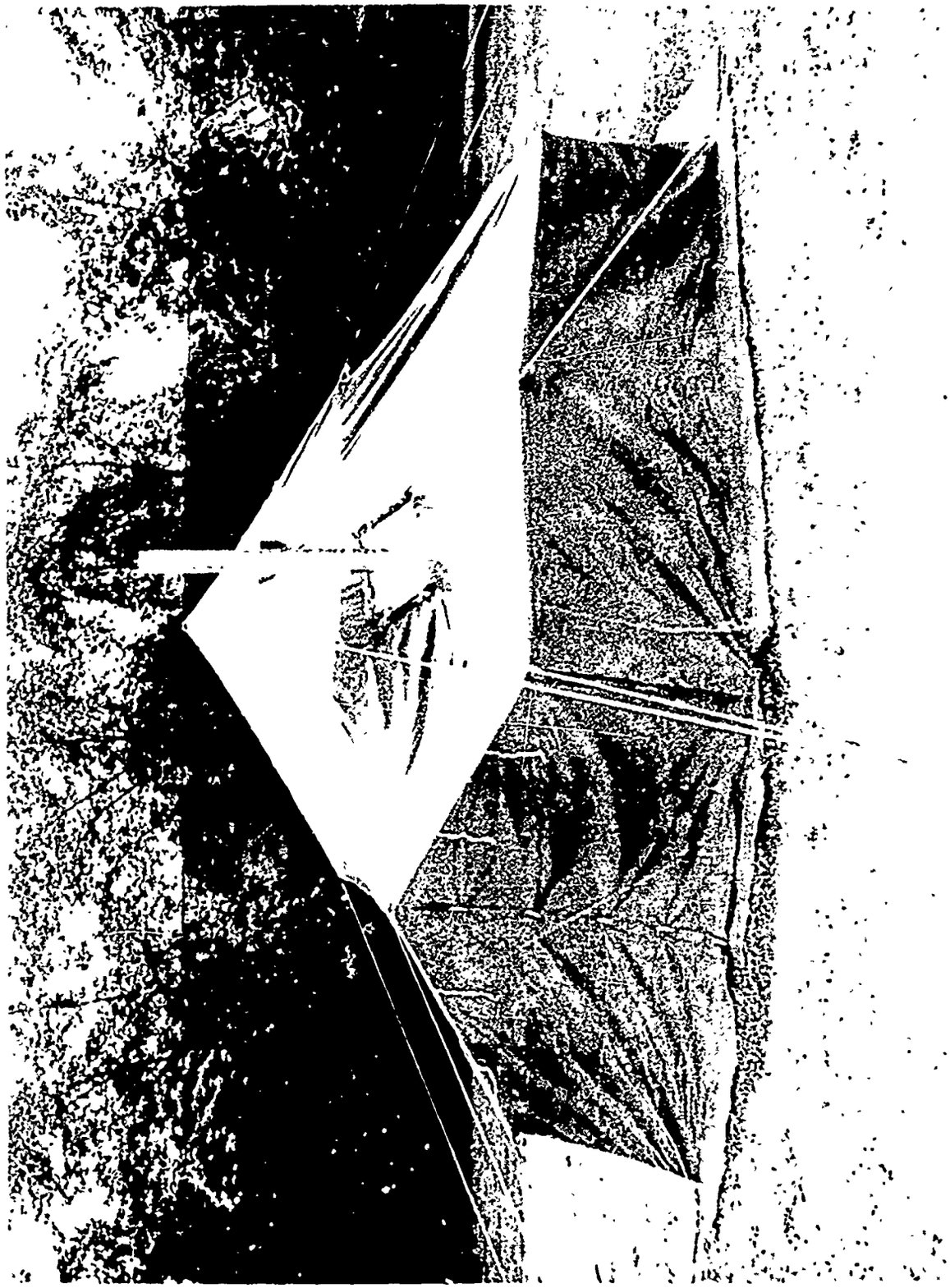
7. Logistical Data:

This is a Standard A item which maintains low usage due to its special purpose. The FSN for the Tent, Liner, Pins and Poles is 8340-269-1372 and the cost is $275.00. The preceding stock number is for reference purposes only. The item is stocked and initially issued by components as follows:

8340-269-1374 -	TENT, hexagonal; lightweight; w/cover liner; w/o pins, poles	1 ea
8340-261-9749 -	PIN, TENT, 9 in lg	20 ea
8340-188-8413 -	POLE, TENT, w/hardware; w/o cleats	1 ea

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item. The item has been found suitable in cold climates.



1. Name of Shelter: Tent, Arctic, 10-Man

2. Type of Shelter:

Non-Rigid
Pole-Supported

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

This is a six-sided, pyramidal tent fabricated of 8.5 oz. cotton, wind-resistant sateen. A stovepipe opening is located in one of the sides near the eave. Both a front and rear entrance is provided with a lacing flap arrangement to permit erection of tents in tandem. A fire resistant liner is provided to insulate the tent and prevent frost from falling on the occupants. Each side of the tent measures 8'9". It is 8'6" at the peak, with a wall height of 3'. The floor area is 200 sq.ft. and the complete tent weighs 76 pounds. The tent can be pitched by 6 men in 27 minutes and struck by 6 men in 18 minutes.

6. Concept of Use:

This is a special purpose tent designed to provide shelter for 10 men and their equipment under arctic conditions.

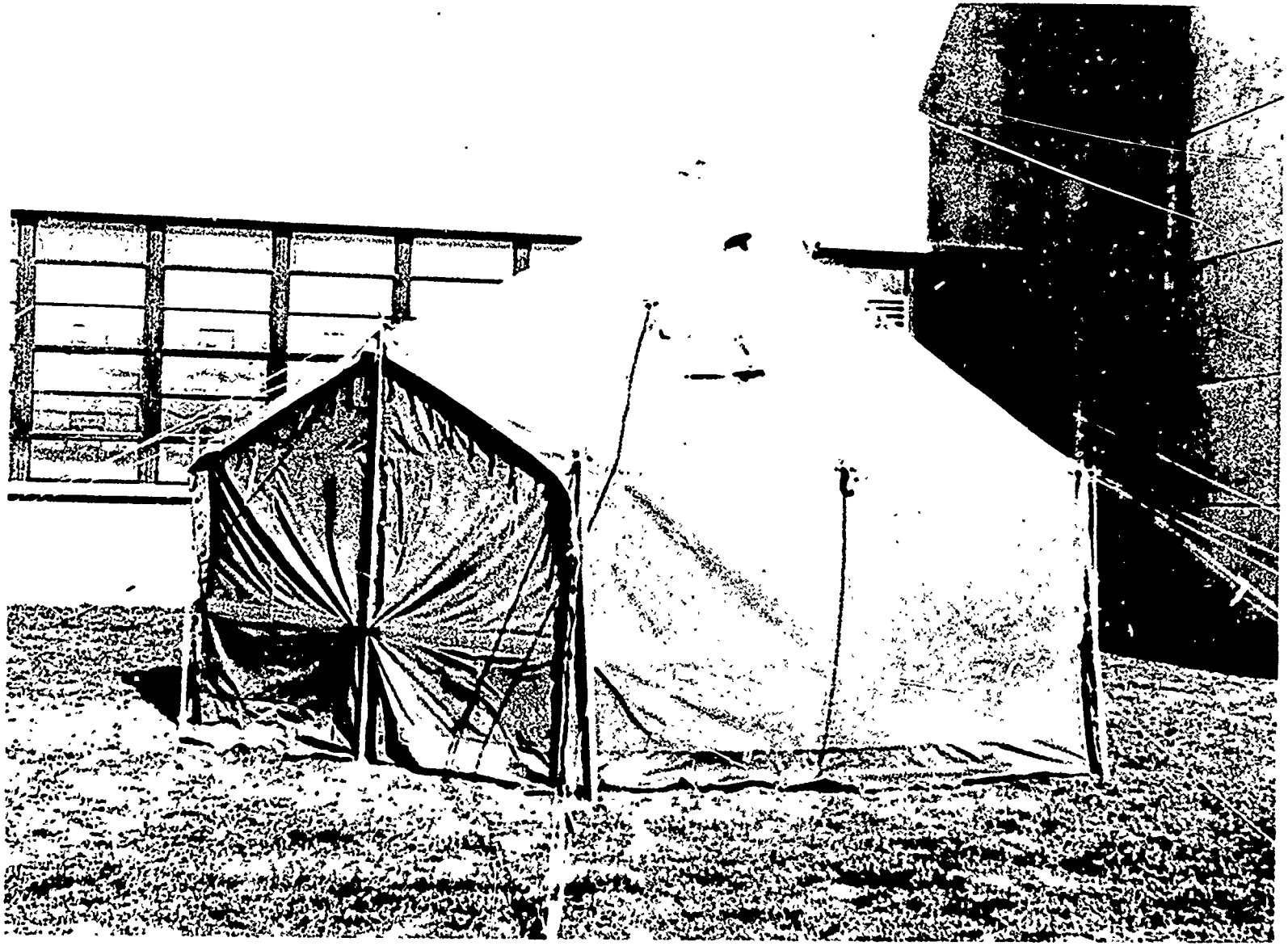
7. Logistical Data:

This is a Standard A item which maintains low usage due to its special purpose. The FSN for the Tent, Liner, Pins and Poles is 8340-262-3685 and the cost is $393.00. The preceding stock number is for reference purposes only. The item is stocked and initially issued by components as follows:

8340-262-3684 -	TENT, arctic, 10 man, w/cover liner, w/o pins and poles	1 ea
8340-261-9749 -	PIN, TENT, 9 in lg	28 ea
8340-188-8413 -	POLE, TENT, w/hardware, w/o cleats	1 ea

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item. The item has been found suitable in cold climates.



1. Name of Shelter: Tent, General Purpose, Small

2. Type of Shelter:
Non-Rigid
Pole-Supported

3. Current Status:
Standard

4. Responsible Engineering Activity:
U. S. Army Natick Laboratories

5. Physical Characteristics:
This is a six-sided, pyramidal tent fabricated of 9.85 oz. cotton duck. The tent is supported by eight adjustable poles. Each side of the tent measures 8'8" long, the eave height is 5' and the peak height is 10'6". The floor area is 200 sq.ft. The tent, liner, pins and poles weigh 186 pounds. The tent can be pitched by 4 men in 30 minutes and struck by 4 men in 15 minutes.

6. Concept of Use:
Intended for use in temperate and tropical zones as a command post, fire direction center, battalion aid, or for any general purpose use. The tent can be transported by vehicle or aircraft.

7. Logistical Data:
This is a Standard A item which maintains high usage and is in stock at Army depots. The FSN for the tent is 8340-753-6571 and the cost is $430.00. A liner and vestibule are available as separate items of issue. The preceding stock number is for reference purposes only.
Item is stocked and initially issued by components as follows:

8340-261-9749 - PIN, TENT: 9 in lg	29 ea
8340-753-6574 - POLE, TENT: 8 ft 6 in to 10 ft 6 in lg	1 ea
8340-753-6575 - POLE, TENT: 3 ft to 5 ft to 7 ft lg	8 ea
8340-753-6570 - TENT: general purpose, small; w/cover	1 ea

ALSO STOCKED FOR ISSUE

8340-262-3698 - TENT LINER	1 ea

NOTE: When required to provide insulation from cold and/or reduce radiation from the sun

8340-753-6573 - VESTIBULE, TENT	1 ea

NOTE: When required for attachment of two tents in tandem, to provide blackout protection and for use to prevent entrance of cold air into the tent

REQUIRED FOR ERECTION OF VESTIBULE

8340-261-9749 - PIN, TENT: 9 in lg	12 ea
8340-753-6575 -POLE, TENT: 3 ft to 5 ft to 7 ft lg	2 ea

8. Remarks:
Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item. The item has been found suitable in temperate and cold climates.

1. Name of Shelter: Tent, Command Post, M-1945

2. Type of Shelter:

Non-Rigid
Pole-Supported

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

This is a pole-supported tent made of 9.85 oz. cotton duck. The central part of the tent is A-shaped and the ends are hip-roofed, with converging sidewalls. The tent has a blackout vestibule long enough to accommodate a litter and bearers. The tent is equipped with a liner, detachable sidewall screens and a cover. The tent is 10' wide, 20'7" long (6'10" of which is vestibule), 9' high with a sidewall height of 6'. The floor area is 172 sq.ft. and the complete tent weighs 257 pounds. The tent can be pitched by 5 men in 20 minutes and struck by 5 men in 15 minutes.

6. Concept of Use:

Designed to provide a portable tent suitable for housing a battalion command post, small staff sections of higher echelons and/or battalion aid stations.

7. Logistical Data:

This is a Standard A item. The FSN for the Tent, Liner, Pins and Poles is 8340-269-1370 and the cost is $425.00. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-254-5358 - TENT, command post, M-1945, w/cover, liner, screens, lines and tent slips	1 ea
8340-261-9750 - PIN, TENT, 16 in lg	20 ea
8340-261-9751 - PIN, TENT, 24 in lg	12 ea
8340-188-8405 - POLE, TENT, 5 ft 8 in lg	8 ea
8340-082-2167 - POLE, TENT, 9 ft lg	2 ea

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item. The item has been found suitable in temperate climates.

1. Name of Shelter: Tent, Kitchen, Flyproof, M-1948

2. Type of Shelter:
Non-Rigid
Pole-Supported

3. Current Status:
Standard

4. Responsible Engineering Activity:
U. S. Army Natick Laboratories

5. Physical Characteristics:
This is a pole-supported tent made of 9.85 oz. cotton duck. The tent is an "A" type, with square end, and rectangular in shape. The back portion of the tent forms a stack higher than the rest of the tent. The side and front walls may be guyed out to form awnings. A wall screen which snaps to the tent provides an insect-proof closure on the sides and front when the walls are raised. The tent is 12' wide, 18' long and 9' high. The wall height is 9' on the stack section and 6' on the deck section. The floor area is 216 sq.ft. and the complete tent weighs 420 pounds. The tent can be pitched by 5 men in 1 hour and struck by 5 men in 40 minutes.

6. Concept of Use:
Designed to provide shelter for the preparation, cooking and serving of food with a minimum danger of contamination from flyborne diseases.

7. Logistical Data:
This is a standard A item. The FSN for the tent is 8340-262-3687 and the cost is $374.00. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-257-2560 - TENT, kitchen; flyproof; w/cover, screen	1 ea
8340-261-9750 - PIN, TENT, 16 in lg	32 ea
8340-261-9751 - PIN, TENT, 24 in lg	31 ea
8340-188-8396 - POLE, TENT, 11 ft 10 in lg	1 ea
8340-188-8392 - POLE, TENT, 5 ft 11-1/4 in lg	1 ea
8340-188-8411 - POLE, TENT, 12 ft 3 in lg	2 ea
8340-188-8406 - POLE, TENT, 6 ft 2 in lg	16 ea
8340-188-8407 - POLE, TENT, 7 ft lg	1 ea
8340-082-2167 - POLE, TENT, 9 ft lg	5 ea

8. Remarks:
Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item.

1. Name of Shelter: Tent, General Purpose, Medium

2. Type of Shelter:
Non-Rigid
Pole-Supported

3. Current Status:
Standard

4. Responsible Engineering Activity:
U. S. Army Natick Laboratories

5. Physical Characteristics:
This is a rectangular, hip-roofed, pole-supported, medium-sized, general purpose tent, made of 9.85 oz. cotton duck. Each end is provided with a 4' wide door. A liner is available as a separate item of issue. The liner contains both fabric and screening sidewalls for insulation and ventilation. The tent is 16' wide, 32' long, 10' high and 5'6" at the sidewalls. The complete tent weighs 569 pounds. The tent can be pitched by 4 men in 40 minutes and struck by 4 men in 30 minutes.

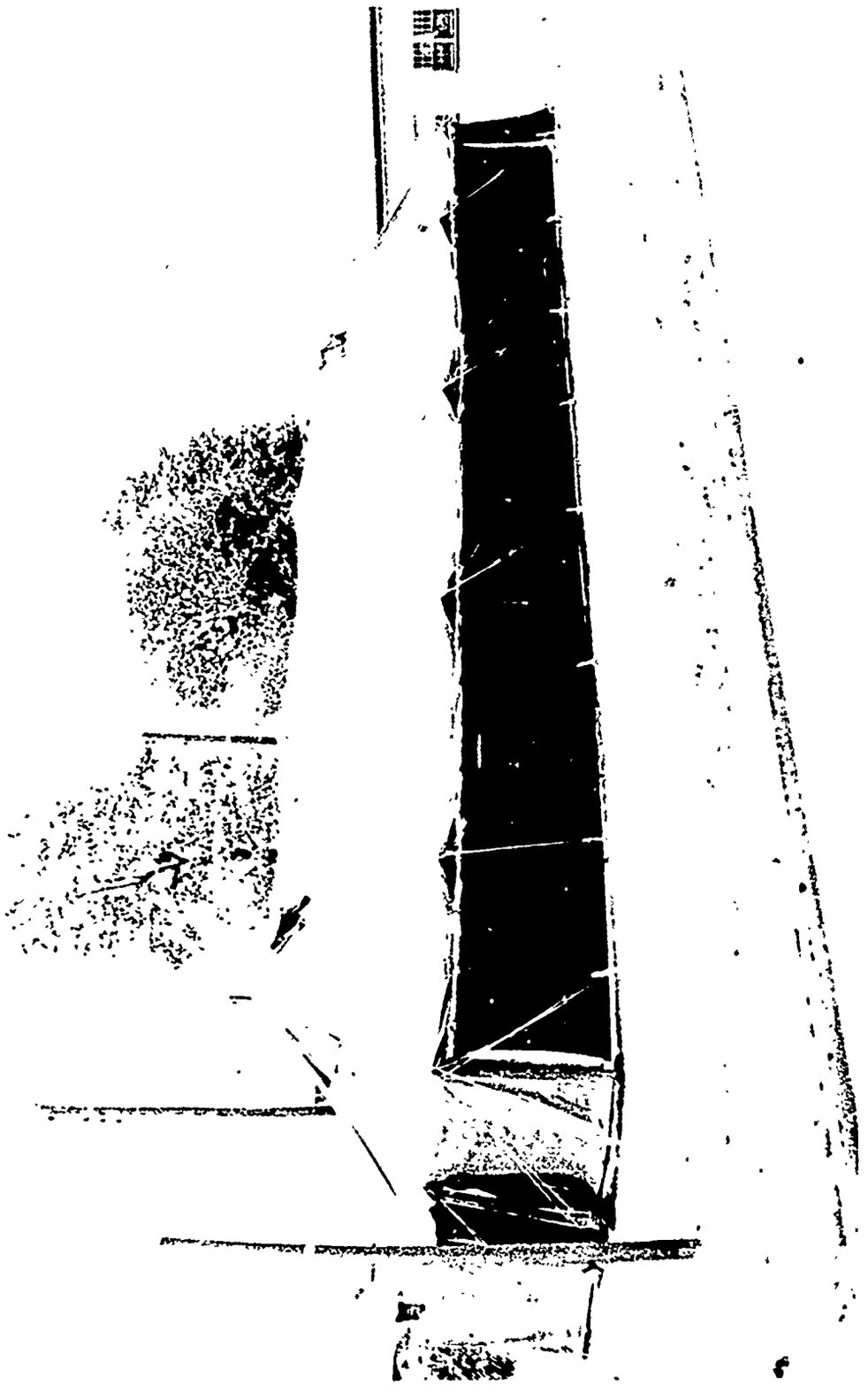
6. Concept of Use:
To be used for personnel housing, fire direction centers, some command posts, mess tents, storage or any other general purpose as required. Will provide protection against environmental conditions.

7. Logistical Data:
This is a Standard A item and is in stock at Army depots. The FSN for the tent, poles and pins is 8340-543-7788 and the cost is $519.00. A liner is available as a separate item of issue and costs $174.00. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-543-7787 - TENT, general purpose, medium, w/cover w/o pins, poles, windows	1 ea
8340-188-8400 - POLE, TENT, 17 ft lg	1 ea
8340-227-1400 - POLE, TENT, 10 ft 3 in lg	2 ea
8340-188-8405 - POLE, TENT, 5 ft 8 in lg	10 ea
8340-188-8406 - POLE, TENT, 6 ft 2 in lg	4 ea
FOR ERECTION ON SOFT OR SEMI-HARD GROUND:	
8340-261-9750 - PIN, TENT, 16 in lg	48 ea
8340-261-9751 - PIN, TENT, 24 in lg	28 ea
FOR ERECTION ON HARD GROUND	
8340-261-9749 - PIN, TENT, 9 in lg	48 ea
8340-823-7451 - PIN, TENT, 12 in lg	28 ea

NOTE: Item listed below is used principally in cold climate areas and is issued only upon request:
8340-262-2402 - TENT LINER

8. Remarks:
Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. The standard tentage repair kit is available for field repair of the item. The item has been found suitable in temperate and cold climates.



1. Name of Shelter: Tent, General Purpose, Large

2. Type of Shelter:
Non-Rigid
Pole-Supported

3. Current Status:
Standard

4. Responsible Engineering Activity:
U. S. Army Natick Laboratories

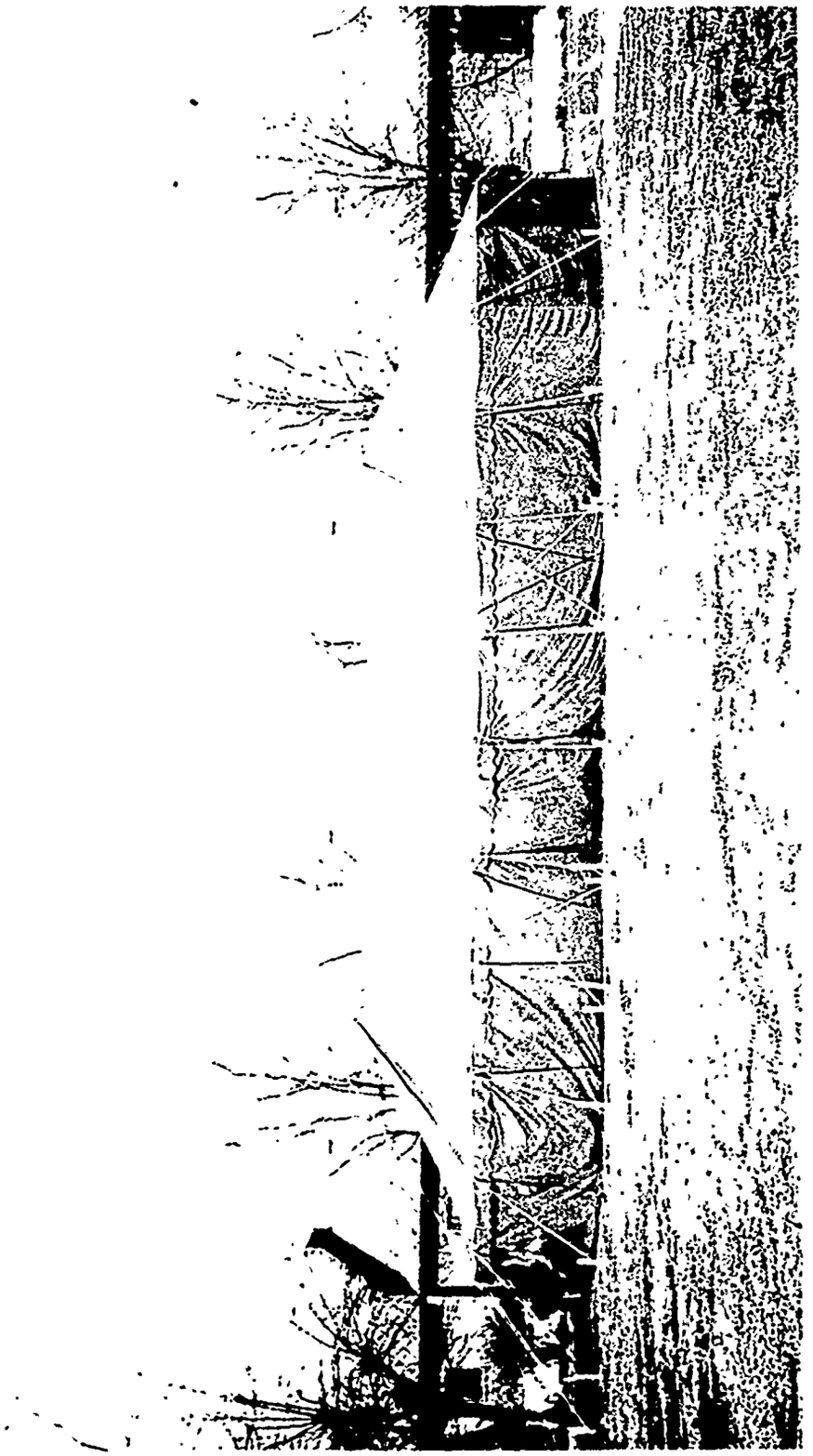
5. Physical Characteristics:
This is a rectangular, hip-roofed, pole-supported, off-center ridge, large size, general purpose tent, made of 9.85 oz. cotton duck. The tent is provided with screened windows, roll-up sidewalls, and a sliding double door entrance at each end. Screen ventilators with flaps are located at the upper part of each end roof and three stovepipe openings are provided in the roof section. A liner which contains screens along the entire length of the sidewalls is available as a separate item of issue. The tent is 18' wide, 52' long, 12' high at the ridge and 5'6" at the sidewalls. The floor area is 936 sq.ft. and the complete tent (including liner) weighs 761 pounds. The tent can be pitched by 6 men in 1-1/4 hours and struck by 6 men in 50 minutes.

6. Concept of Use:
Designed to provide a large shelter primarily for use as a hospital ward. Also for use as a small bakery, for storage, quartering of troops, etc.

7. Logistical Data:
This is a Standard A item. The FSN for the tent, poles and pins is 8340-285-5599 and the cost is $882.00. A liner is available as a separate item of issue and costs $381.00. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-285-5596 - TENT, general purpose; large; w/cover; w/o pins, poles	1 ea
8340-188-8411 - POLE, TENT, 12 ft 3 in lg	4 ea
8340-188-8405 - POLE, TENT, 5 ft 8 in lg	12 ea
8340-188-8406 - POLE, TENT, 6 ft 2 in lg	4 ea
FOR ERECTION ON SOFT OR SEMI-HARD GROUND:	
8340-261-9750 - PIN, TENT, 16 in lg	68 ea
8340-261-9751 - PIN, TENT, 24 in lg	32 ea
FOR ERECTION ON HARD GROUND:	
8340-261-9749 - PIN, TENT, 9 in lg	68 ea
8340-823-7451 - PIN, TENT, 12 in lg	32 ea
NOTE: Item listed below is used principally in cold climate areas and is issued only upon request	
8340-285-5033 - TENT LINER	1 ea

8. Remarks:
Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item.



1. Name of Shelter: Tent Assembly, M-1942

2. Type of Shelter:
Non-Rigid
Pole-Supported

3. Current Status:
Standard

4. Responsible Engineering Activity:
U. S. Army Natick Laboratories

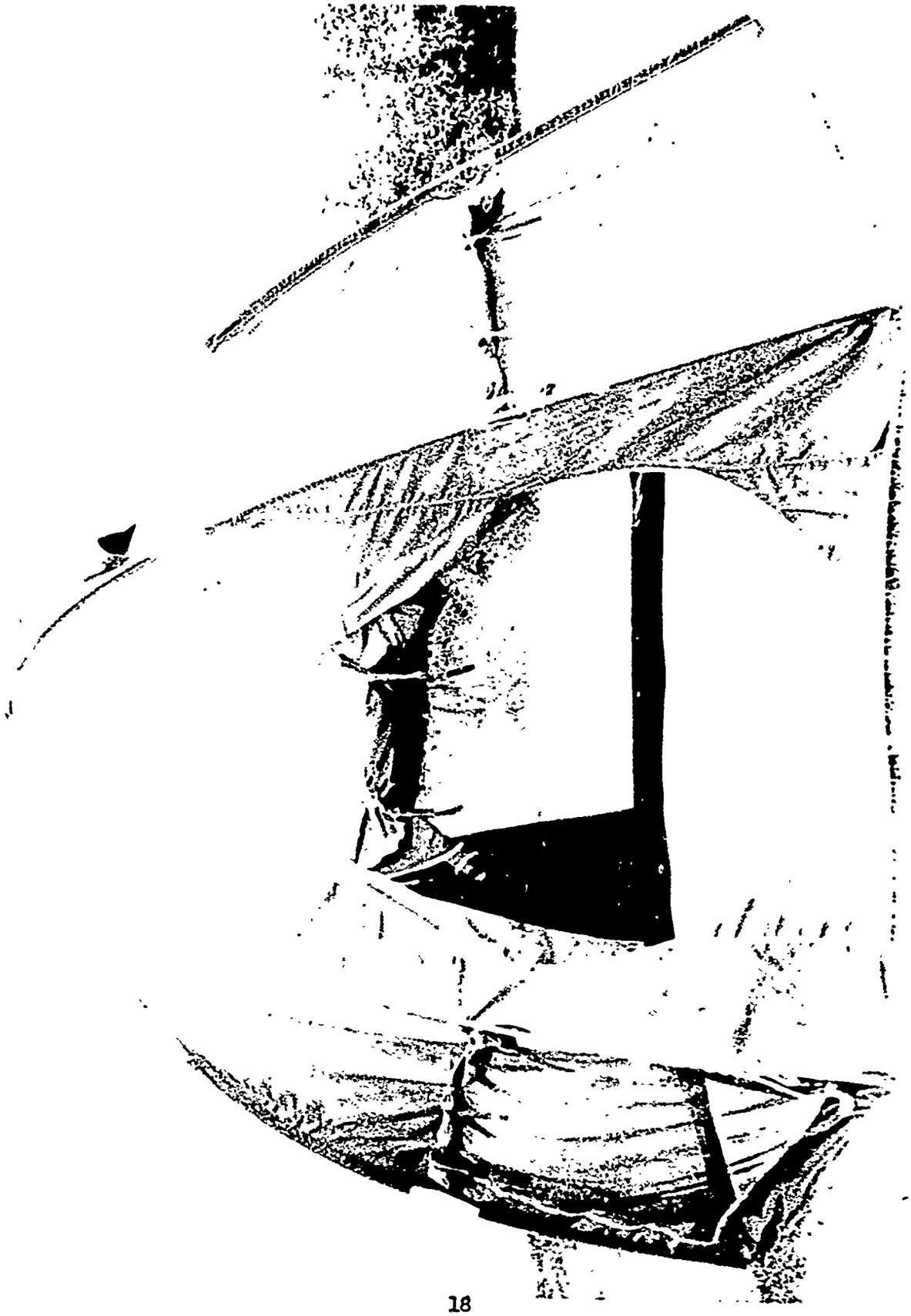
5. Physical Characteristics:
This is a large, pole-supported, sectional type structure made of 9.85 oz. cotton duck. The top of the tent consists of two middle sections and two rounded end sections. The sidewall is in four sections. There are three large poles complete with supporting rings, block and tackle for erecting and supporting the tent. The tent is 40' wide, 80' long, 18' high with an eave height of 8'. The tent can be lengthened by the addition of middle sections to any desired length. The 40' x 80' tent has a 3200 sq.ft. floor area and weighs 1,755 pounds. The tent can be pitched by 6 men in 5 hours and struck by 6 men in 2 hours.

6. Concept of Use:
To be used for church services in the field, for lectures and for the showing of movies. It can also be used for storage, for quartering personnel, or for any other authorized purpose.

7. Logistical Data:
This is a Standard A item. The FSN for the tent, poles, pins, block and tackle, etc. is 8340-262-2877 and the cost is $1,327.00. The preceding stock number is for reference purposes only. The item is stocked and initially issued by components as follows:

8340-266-6782 - TENT SECTION, wall	4 ea
8340-266-6780 - TENT SECTION, end	2 ea
8340-266-6781 - TENT SECTION, middle	2 ea
8340-377-6606 - RIGGING SET, TENT, consisting of the following components:	1 ea
3940-272-9285 - BLOCK AND TACKLE	3 ea
8340-242-7863 - CHAIN, HOOK AND RING, TENT	3 ea
8340-252-2266 - LINE, TENT	9 ea
8340-241-9752 - PIN, TENT, 36 in lg	39 ea
8340-082-5738 - POLE, TENT, 8 ft 3 in lg	30 ea
8340-241-8183 - POLE, TENT, 21 ft lg	3 ea

8. Remarks:
Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item.



1. Name of Shelter: Tent, Pop-Up, 5-Man (Tropical Climate)

2. Type of Shelter:

Non-Rigid
Frame-Supported

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

This is a lightweight, hexagonal shaped, frame-supported, umbrella type tent. The frame is constructed mainly of epoxy glass-filled rods and stainless steel tubing to form six supporting ribs. These ribs, when connected at one end, form a spider type assembly with each leg captured in sleeves sewed outside the tent. The fabric portion of the tent is made of 8.5 oz. cotton, wind-resistant sateen. The tent is equipped with a U-shaped door, 5 screened windows and 2 ventilators. Each side of the tent is 5'9" long, 10'2" wide across flat sides and 6'8" high. The tent has a floor area of 88 sq.ft. and weighs 43 pounds. The tent can be erected by two men in 20 minutes and struck by 2 men in 10 minutes.

6. Concept of Use:

Designed as a lightweight, portable, 5-man tent that is capable of being easily man packed and quickly erected under various environmental conditions.

7. Logistical Data:

This is an experimental tent which has been made in small quantities for evaluation in Vietnam. A cold weather version was also tested in the Arctic. The tent withstood winds up to 35 knots. At the present time, there is no requirement for the item.

8. Remarks:

A Purchase Description and drawings are available for procurement of the item.

1. Name of Shelter: Tent, General Purpose, Small (Experimental)

2. Type of Shelter:
Non-Rigid
Frame-Type

3. Current Status:
Development Stage

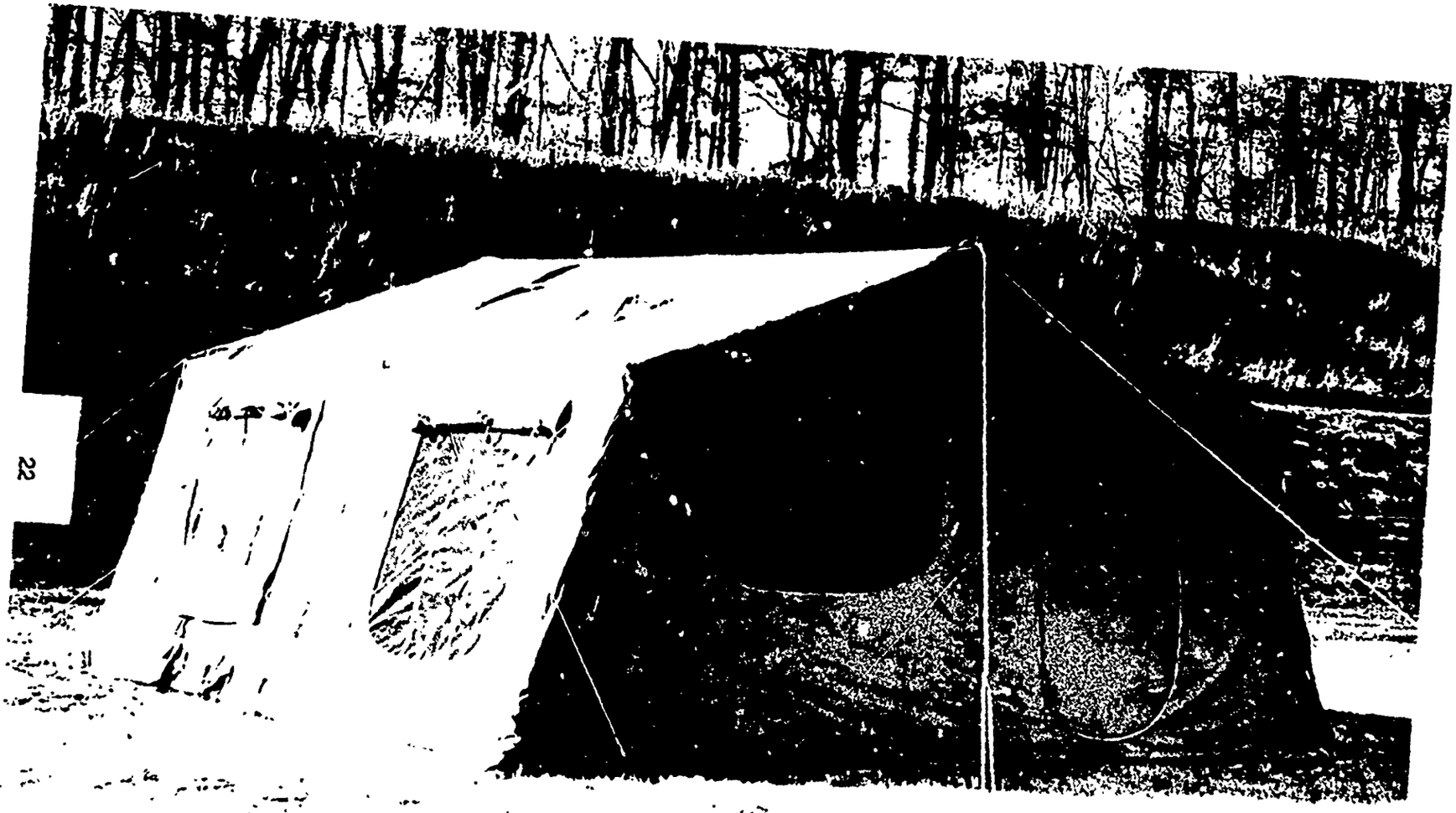
4. Responsible Engineering Activity:
U. S. Army Natick Laboratories

5. Physical Characteristics:
The Experimental General Purpose Small Tent is a rectangular, hip-roofed, frame-supported tent 14'6" wide by 19' long by 8'8" high with an eave height of 6'. The tent consists of a simplified steel frame having a maximum of interchangeable parts. The outer skin is made in three sections; two interchangeable ends each having one third of the roof and walls attached and one complete intermediate section. A removeable inner partition is furnished with the tent and when installed, it provides a built-in vestibule extending one third of the tents inner length. A sectionalized, three piece liner is furnished for the remaining two thirds of the tents inner length. The erected tent has two stovepipe outlets, two peak ventilators and six windows. The tent is capable of being extended in increments of 6'4". The outer skin and partition are made of 9.85 oz. FWWMR cotton duck and the liner is made of 5.2 oz. FWWMR cotton fabric. Weight of the tent components are: outer skin, 118 lbs; partition, 12 lbs; liner, 30 lbs; frame, 144 lbs, for a total tent weight of 304 pounds. The tent can be erected by 4 men in 25 minutes and struck by 4 men in 20 minutes.

6. Concept of Use:
Designed to replace the standard, pole-supported, general purpose small tent. It is intended to be used as a command post, fire direction center, battalion aid, or for any general purpose use.

7. Logistical Data:
A quantity of ten (10) tents were procured for USATECOM field tests under temperate, tropical and arctic conditions. The tent was found unsuitable under arctic conditions due largely to the stiffness and shrinkage of the 9.85 oz. duck used for the outer skin. Under temperate climate conditions, the tent was used as a fire direction center and was preferred over the standard item. Tests in the tropics are scheduled to be completed 1Q72. A tent having an outer skin made from 10 oz. Dynel has been furnished USARAL for evaluation under Arctic conditions. It is estimated that the tent made from 9.85 oz. cotton duck will cost $500.00 in large procurements.

8. Remarks:
A Technical Data Package is available for procurement of the item. No special training is required to use the tent. The tent can be repaired by the standard tentage repair kit.



1. Name of Shelter: Tent, Frame-Type, Expandable, 16' x 16'

2. Type of Shelter:

Non-Rigid
Frame-Type

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

This is an expandable frame-supported tent, consisting of an aluminum frame and a covering of 8.5 oz. cotton, wind-resistant sateen fabric. The tent is provided with two U-shaped doors, four screened windows, 2 heater duct openings, a ventilator and stovepipe opening. The tent is 16' wide, 16' long, 8'6" high at the ridge and 6' high at the eaves. The complete tent weighs 300 pounds. The tent can be erected by 4 men in 45 minutes and struck by 4 men in 20 minutes.

6. Concept of Use:

Provides a highly mobile tent suitable for use by Airmobile Divisions as a division tactical operations and plan center, as a communication center and as a briefing tent.

7. Logistical Data:

This tent has been type classified Standard A for use by Airmobile Divisions. The FSN for the complete tent is 8340-782-3232 and the cost is $1,231.00, ($643.00 for the frame and $581.00 for the tent). The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-782-3400 - FRAME, TENT	1 ea
8340-261-9749 - PIN, TENT, aluminum, 9 in lg	18 ea
8340-823-7451 - PIN, TENT, steel, 12 in lg	6 ea
8340-261-9750 - PIN, TENT, wood, 16 in lg	10 ea
8340-782-3425 - TENT, w/cover; w/o components	1 ea

8. Remarks:

Specifications and drawings are available for procurement of the item by DPSC, Phila. All training and maintenance manuals are available for the item. The standard tentage repair kit is available for field repair of the item. The item has been found suitable in tropical climates.

1. Name of Shelter: Tent, Frame-Type, Insulated, Sectional, 16' x 16'

2. Type of Shelter:

Non-Rigid
Frame-Type

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

The shelter is a sectional, frame-supported tent composed of an insulated skin, wooden supporting frame, insulated plywood floor boxes, and insulated vestibules. The insulated skin consists of 1" thick fiberglas batting captured between two layers of vinyl-coated cotton duck. The shelter is 16' wide, 16' long and 8' high and can be expanded in multiples of 4'. The complete shelter weighs 2,252 pounds. Six men can erect the shelter in 45 minutes and strike the shelter in 30 minutes.

6. Concept of Use:

To be used as a general purpose tent in extreme cold climates. The shelter can be transported by vehicle or aircraft.

7. Logistical Data:

This is a Standard A item which is in stock at Army depots. The FSN for the tent is 8340-262-2399 and the cost is $1,481.00. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-182-0436 - ARCH, TENT FRAME	5 ea
8320-508-0600 - CONNECTOR-SWITCH	1 ea
8340-377-6609 - TENT SECTION, end	2 ea
8340-377-6611 - TENT SECTION, intermediate	2 ea
8340-377-6612 - VESTIBULE, TENT	1 ea

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item. The item has been found suitable in extreme cold climates.

1. Name of Shelter: Tent, Maintenance, Shelter

2. Type of Shelter:
Non-Rigid
Frame-Supported

3. Current Status:
Standard

4. Responsible Engineering Activity:
U. S. Army Natick Laboratories

5. Physical Characteristics:
This is an A-type, square-end, rectangular tent made of 9.85 oz. cotton duck and supported by a steel frame. The tent has a door at each end formed by the overlapping of the end wall halves. The tent measures 18' wide, 26' long, 13'8" at the peak with a sidewall height of 5'6". The floor area is 468 sq.ft. and the complete tent weighs 1,255 pounds. Four men can erect the tent in 2 hours and strike the tent in 1 hour.

6. Concept of Use:
Designed to provide a small maintenance shelter for tank and truck maintenance crews and their equipment.

7. Logistical Data:
This is a standard item used mostly by the Marine Corps. The FSN for the tent is 8340-257-2557 and the cost is $850.00. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-257-2558 -	TENT, maintenance; shelter; w/cover, ground cloths; w/o frame, pins	1 ea
8340-242-7871 -	FRAME SECTION, TENT, designed for tent, maintenance shelter; steel; Sec no. 1 bottom	1 ea
8340-242-7870 -	FRAME SECTION, TENT, designed for tent, maintenance shelter; steel; Sec no. 2 middle	1 ea
8340-242-7869 -	FRAME SECTION, TENT, designed for tent, maintenance shelter; steel; Sec no. 3 top	1 ea
8340-261-9750 -	PIN, TENT, 16 in lg	38 ea
8340-261-9751 -	PIN, TENT, 24 in lg	18 ea

8. Remarks:
Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item.

1. Name of Shelter: Tent, Frame-Type, Maintenance, Medium, Light Metal

2. Type of Shelter:
Non-Rigid
Frame-Supported

3. Current Status:
Standard

4. Responsible Engineering Activity:
U. S. Army Natick Laboratories

5. Physical Characteristics:
This is a sectional, frame-supported tent consisting of an outer fabric, inner liner and supporting frame. The outer fabric is 9.85 oz. cotton duck. An insulated liner made of fiberglas batting captured between two layers of cloth, cotton, sateen, carded, 8.5 oz. and natural in color, is available for use in cold climates. The frame is made of magnesium and consists of two end arches, intermediate arches, connecting purlins, and cantilever-type door assemblies. The basic tent measures 20' wide, 32' long and 14' high. However, it can be lengthened in increments of 8' to any desirable length. The floor area of the basic tent is 640 sq.ft. and the complete tent weighs 3,276 pounds. Four men can erect the tent in 5 hours and strike the tent in 4 hours.

6. Concept of Use:
Designed as a medium-sized maintenance shelter for use in the repair of tracked and wheeled vehicles.

7. Logistical Data:
This is a Standard A item which maintains high usage and is in stock at Army depots. The FSN for the tent is 8340-951-6419 and the cost is $2,918.00. A liner is available as a separate item of issue and costs $783.00. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-951-6420 - FRAME SECTION, TENT (pack no. 1)	1 ea
8340-951-6421 - FRAME SECTION, TENT (pack no. 2)	1 ea
8340-951-6422 - FRAME SECTION, TENT (pack no. 3)	3 ea
8340-951-6423 - KIT, GROUND ANCHOR	1 ea
8340-823-7451 - PIN, TENT, steel, 12 in lg	24 ea
8340-951-6424 - TENT SECTION, end	2 ea
8340-951-6425 - TENT SECTION, intermediate	3 ea

NOTE: A liner is authorized in extreme cold climates areas and is issued only upon request. It is stocked and initially issued by components as follows:

8340-986-0024 - Tent Liner, End Sect., "A" w/cover	1 ea
8340-978-9627 - Tent Liner, End Sect., "B" w/cover	1 ea
8340-951-6426 - Tent Liner, Intermediate Section, w/cover	3 ea

8. Remarks:
Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item. The item has been found suitable in temperate and cold climates.

1. Name of Shelter: Shelter, Frame-Supported, Universal Field Maintenance

2. Type of Shelter:
Non-Rigid
Frame-Type

3. Current Status:
Development Stage

4. Responsible Engineering Activity:
U. S. Army Natick Laboratories

5. Physical Characteristics:
The shelter consists of a frame with a covering made of 9.85 oz. cotton duck. A Door 12' wide and 20' high is provided at each end of the shelter. A liner containing large screened windows is provided with the tent for tropical climates. The door posts hinge at the top allowing the base of the door to be widened to 24'. The overall dimensions of the shelter are 27' wide, 22' high and 64' long. The complete shelter weighs 5,189 pounds. Twelve men can erect the shelter in 8 hours and strike the shelter in 6 hours.

6. Concept of Use:
Provides a maintenance shelter for use in hot climates. The shelter is suitable for use with all Army helicopters, wheeled and tracked vehicles. The shelter is highly mobile and can be transported by vehicle or aircraft.

7. Logistical Data:
The shelter was developed by NLABS under ENSURE and a quantity of 325 have been procured by DPSC for use in Vietnam. The FSN for the tent is 8340-935-6372 and the shelter costs $5,796.00. The preceding stock number is for reference purposes only. The tent is stocked and initially issued by components as follows:

8340-935-6337 - FRAME SECTION, TENT (pack no. 1)	1 ea
8340-935-6336 - FRAME SECTION, TENT (pack no. 2)	1 ea
8340-935-6338 - FRAME SECTION, TENT (pack no. 3)	7 ea
8340-951-6423 - KIT, GROUND ANCHOR	1 ea
8340-823-7451 - PIN, TENT, steel, 12 in lg	48 ea
8340-935-6339 - TENT LINER, end roof, sect	2 ea
8340-935-6340 - TENT LINER, intermediate roof sect	5 ea
8340-935-6341 - TENT SECTION, end roof	2 ea
8340-935-6342 - TENT SECTION, end wall	2 ea
8340-935-6343 - TENT SECTION, intermediate roof	5 ea

FOR MAINTENANCE REPAIRS, REQUISITION
8340-262-5767 - REPAIR KIT, TENTAGE

8. Remarks:
Specifications and drawings are available for competitive procurement. The item has been production tested and DPSC has made several procurements of the shelter. A maintenance package and training literature are available. The shelter has been found suitable for use in Vietnam.

1. Name of Shelter: Shelter, Aircraft Maintenance, Extendible

2. Type of Shelter:

Non-Rigid
Frame-Supported

3. Current Status:

Commercial item
currently being
evaluated in Vietnam

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

This is a portable, air-transportable, lightweight, extendible shelter. The framework is made of lightweight, corrosion-resistant aluminum alloy frame assemblies covered with vinyl-coated nylon blankets. The longest component in the structure is 30' long. Erection is done on and from the ground by hand labor and no special tools are required. The entire roof is raised by hand winches. The shelter has an accordian-style door at both ends and four personnel doors are provided. The shelter measures 75' wide, 100' long and 30' high. The floor area is 7,500 sq.ft. and the complete shelter weighs 29,900 pounds. A crew of 20 men can erect the shelter in 50 hours and strike the shelter in 30 hours.

6. Concept of Use:

Provides a large sheltered area with unencumbered floor space for maintenance of Army aircraft.

7. Logistical Data:

This is a commercial item. Four of these shelters were procured by Natick Laboratories and are currently being evaluated in Vietnam. The cost of one shelter as described above is $98,000.00.

8. Remarks:

Reports from Vietnam indicate that the shelter is suitable and performing its intended function.

1. Name of Shelter: Tent, Maintenance, Army Aircraft, Air-Supported, with Auxiliary Rigid Frame

2. Type of Shelter:

Non-Rigid
Combination frame and air-supported

3. Current Status:

Experimental

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

This is an air-supported tent made of 18 oz. neoprene coated nylon cloth. This is a sectional hemispherical structure with a basic radius of 36' and an 8' semi-cylindrical center section. The length of the shelter may be increased by the insertion of additional center sections. It is held rigid by a continuous flow of high volume, low pressure air, supplied by an electric blower. The entrance or exit of vehicles is accomplished by releasing the fabric of either end section from the ground anchors and raising the end fabric and arches by means of motor-operated winches. The tent measures 72' wide, 80' long and 37' high. The floor area is 4,647 sq.ft. and the complete tent weighs 5,9[illegible] pounds. Eight men can erect the shelter in 24 hours and strike the shelter in 8 hours.

6. Concept of Use:

Designed to provide a maintenance shelter for both rotary and fixed-wing Army aircraft as well as the heavy tank, permitting traverse of the tank turret for removal of the engine.

7. Logistical Data:

This is an experimental tent estimated to cost approximately $30,000.00. Presently, there is no requirement for the item.

8. Remarks:

A procurement package is available for use in procuring the item.

1. Name of Shelter: Tent, Air-Supported, Radome, Nike Hercules System

2. Type of Shelter:

Non-Rigid
Air-Supported

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

This is a single-wall, air-supported shelter made of 10 oz. polyester cloth. The tent is composed of two half sections joined by a continuous 57' long zipper. A round 36" diameter bump-through door is provided for the entrance of personnel. The tent is erected and supported by a continuous flow of low pressure air from an electric motor-driven blower located outside the tent. A manual quick-release device is incorporated within the zipper at the top center of the tent. When the device is tripped, by pulling an attached cord, the pressure inside the tent separates the tent in halves. The tent measures 19'8" high with a base diameter of 24' and a major diameter of 27'. The floor area is 572 sq.ft. and the tent and blower weigh 978 pounds. Four men can erect the shelter in 45 minutes and strike the shelter in 20 minutes.

6. Concept of Use:

Provides protection from the weather to the Nike Hercules acquisition and radar tracking equipment and operating personnel during service and maintenance of this equipment.

7. Logistical Data:

This is a Standard A item. The FSN for the tent is 8340-935-1887 and the cost is $1,062.00. The following items are also required for erection of the tent:

8340-050-8483 - COVER, PROTECTIVE, anti-jamming device	1 ea	($203.00)
4140-050-8676 - FAN, CENTRIFUGAL, MIL-F-43216	1 ea	($2,932.00)

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item.

1. Name of Shelter: Tent, Air-Supported, Nike Hercules, Above Ground Launcher

2. Type of Shelter:

Non-Rigid
Air-Supported

3. Current Status:

Obsolete

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

This is a single wall, air-supported tent made of 18 oz. - 21 oz. vinyl-coated nylon cloth. The tent is composed of two half sections joined by a continuous 72' long zipper. A round 36" diameter bump-through door is provided at one end of the tent for the entrance of personnel. The tent is erected and supported by a continuous flow of low pressure air from an electric motor-driven blower located outside the tent. A manual quick-release device is incorporated within the zipper at the top center of the tent. When the device is tripped, by pulling an attached cord, the pressure inside the tent separates the tent in halves. The tent measures 17'6" wide, 61' long and 13' high. The floor area is 945 sq.ft. and the tent and blower weigh 1,855 pounds. Four men can erect the shelter in 1 hour and strike the shelter in 1/2 hour.

6. Concept of Use:

Provided shelter for the Nike Hercules Anti-Aircraft Missiles on above ground launching sites and for personnel while servicing the missiles.

7. Logistical Data:

This tent was reclassified from Standard A to obsolete since there is no current requirement for the item. As a matter of information, the FSN for the tent was 8340-656-0999 and the cost was $1,553.00.

8. Remarks:

Specifications and drawings are available for procurement by DPSC, Phila. All training and maintenance manuals are available for the item. A standard repair kit is available for field repair of the item.

1. Name of Shelter: Tent, Single Wall, Air-Supported, Storage

2. Type of Shelter:

Non-Rigid
Air-Supported

3. Current Status:

Experimental

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

This is an air-supported, semi-cylindrical shaped, single wall shelter which provides a large unencumbered floor area for storage of supplies. The fabric used in the shelter is 20 oz. vinyl coated nylon. The inflation system consists of a high volume, low pressure blower, supplying the equivalent of 2" of water pressure. Two personnel doors are provided in the tent. When desirable, a vestibule airlock can be attached to one end of the tent to allow for the entrance of large items without loss of air pressure. The shelter is 40' wide, 72' long and 20' high. The floor area is 2,880 sq.ft. and the complete tent weighs 1,000 pounds. Six men can erect the shelter in 1-1/2 hours and strike the shelter in 1 hour.

6. Concept of Use:

Provides a large shelter with unencumbered floor space at minimum cost. Can be used wherever electrical power is available. Widely used as a warehouse facility which can be easily and quickly moved.

7. Logistical Data:

These types of shelters are being used for warehouse facilities on an experimental basis. A large quantity are being used in Southeast Asia. The sizes range from 45' wide by 60' long to 100' wide by 200' long. The 40' by 72' shelter costs $4,500.00.

8. Remarks:

A purchase document is available for competitive procurement of the item.

1. Name of Shelter: Tent Set, Air-Supported, Double Wall, Vehicle Maintenance, Small

2. Type of Shelter:

Non-Rigid
Air-Inflated

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U.S. Army Natick Laboratories

5. Physical Characteristics:

The tent is a double wall, air-supported tent made of 13 - 15 oz. neoprene-hypalon coated nylon cloth. The tent consists of one inflatable section equipped with a removeable tank end curtain and a vehicle end curtain. The tent is 20' wide, 13' long and 12' high. Four men can erect the shelter in 1 hour and strike the shelter in 1/2 hour.

6. Concept of Use:

Designed to meet CDOG requirement. Para. 1639(18). Provides a portable tent to be carried by maintenance personnel to a disabled vehicle in the field. It provides protection of the maintenance crews in cold climates. The shelter can be transported by vehicle or aircraft.

7. Logistical Data:

The shelter was tested under Arctic conditions and it was found that the fabric was too stiff for Arctic use. The test report recommended that a lighter weight, more flexible fabric be used. The requirement for the shelter has now been cancelled by CDC.

8. Remarks:

Specification and drawings are available for competitive procurement. The item is suitable for use in desert and temperate climates.

1. Name of Shelter: Shelter System, Collective Protection, Chemical-Biological, Trailer-Transported, XM51

2. Type of Shelter:

Non-Rigid
Air-Inflated

3. Current Status:

Development Stage

4. Responsible Engineering Activity:
U. S. Army Munitions Command, Edgewood Arsenal, Maryland. NLABS is furnishing technical support for the inflatable shelter.

5. Physical Characteristics:

Air-supported shelter, half cylindrical in shape, floor space is about 210 sq.ft. overall length including protective entrance (capable of handling two litter patients side by side) is 26' wide, 17'8" long and 8'10" high. It is of dual wall construction utilizing a toxic agent impermeable material (Tedlar-dacron laminate). Shelter, protective entrance, main engine, power generator, environmental control equipment and 24 hour fuel supply are all mounted on a 1-1/2 ton M105A2 Trailer. Five men can erect the shelter in 36 minutes and strike the shelter in 25 minutes.

6. Concept of Use:

It can be used as a command post, battalion fire direction center, battalion medical aid station, air operations center, communications center and rest and relief station in a toxicologically contaminated atmosphere. It is transported, as required on the M105A2 Trailer.

7. Logistical Data:

Initial ET/ST completed in December 1970. Item scheduled for type classification in 2Q FY72. Projected cost in production is approximately $20,000.00.

8. Remarks:

The TDP is being upgraded in consonance with ET/ST findings. Training course material is available. USAMUCOM has logistic responsibility for the item.

1. Name of Shelter: Air-Inflatable, Double Wall, Hospital Ward

2. Type of Shelter:

Non-Rigid
Air-Inflated

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Medical Research and Development Command. NLABS is furnishing technical support in the procurement and any modification of the shelter. MECOM has logistic responsibility for the shelter.

5. Physical Characteristics:

This is an inflatable double wall shelter made of 13 - 15 oz., synthetic coated, polyester cloth. The shelter consists of four interchangeable inflatable sections and two end panels. Each section is of multi-cell construction designed to contain, within each cell, inflatable and replaceable bladders which hold the air to support the sections. Sections are joined by zippers and buckle connections. The shelter is also provided with a frame-supported air lock. The shelter is 20' wide, 13' long and 10' high. Six men can erect the shelter in 4 hours and strike the shelter in 3 hours.

6. Concept of Use:

Designed as a highly mobile shelter for use primarily as a hospital ward. Other uses include the casualty receiving area, pre- and post-operative areas and dispensary. The shelter can be transported by vehicle or aircraft.

7. Logistical Data:

A quantity of 355 Hospital Wards (consists of 4 inflatable sections) have been procured at a cost of $22,000.00 each or a total cost of $10,220,816.00. The shelter was developed by the Surgeon Generals Office but MECOM provides logistic support for the item.

8. Remarks:

Specifications and drawings are available for competitive procurement. Air Cruisers, (Division of Garrett Corp.) is the only company that has manufactured the shelter up to the present time. Training and Maintenance manuals are available for use with the item. The item has been found suitable in Southeast Asia and the shelter has been type classified Standard A.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75951

1. Name of Shelter: Tent, Air-Supported, Double Wall, Aviation, Maintenance, Medium, Sectionalized

2. Type of Shelter:

Non-Rigid
Air-Inflated

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

The shelter is a double wall, air-supported sectional tent made of 13 - 15 oz. neoprene-hypalon coated nylon cloth. The tent consists of inflatable sections equipped with half zippers sewed to the end tubes. These zippers permit the attachment of various end closures for different aircraft or the attachment of additional sections to lengthen the tent in modules of 10'3". One section is 24' wide, 10'3" long and 16'4" high. Four men can erect a 4 section shelter in 45 minutes and strike the shelter in 30 minutes.

6. Concept of Use:

Designed to meet CDOG requirement, Para. 1639(19). Provides a medium sized, lightweight and quickly erected shelter for the nose-in maintenance of Army aircraft. The shelter can be used wherever electrical power is available. The shelter can be transported by vehicle or aircraft.

7. Logistical Data:

The item was service tested and it was recommended that it be type classified as LP type to be procured in sufficient quantities to meet immediate operational requirements. However, T.C. action was cancelled when CDC made further evaluations of the requirement and found that the Brooks & Perkins Shelter was the preferred item to meet operational needs. It is estimated that one section with ends would cost $3,000.00 in production.

8. Remarks:

Specification and drawings are available for competitive procurement. No special training is required for erection of the shelter. The item has been found suitable in desert and temperate conditions.

1. Name of Shelter: Tent, Air-Supported, Double Wall, Maintenance Multi-Purpose, Sectionalized (Pershing Missile)

2. Type of Shelter:

Non-Rigid
Air-Inflated

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

The tent is a double-wall, air-supported sectional tent made of 13 - 15 Oz. neoprene-hypalon coated nylon cloth. The tent consists of four interchangeable, inflatable sections which are equipped with half zippers sewed to the end tubes. The zippers permit the attachment of end curtains or sectionalizing bands that are used for joining the four sections together. The tent is 20' wide, 52' long and 12'6" high. Four men can erect the shelter in 45 minutes and strike the shelter in 30 minutes.

6. Concept of Use:

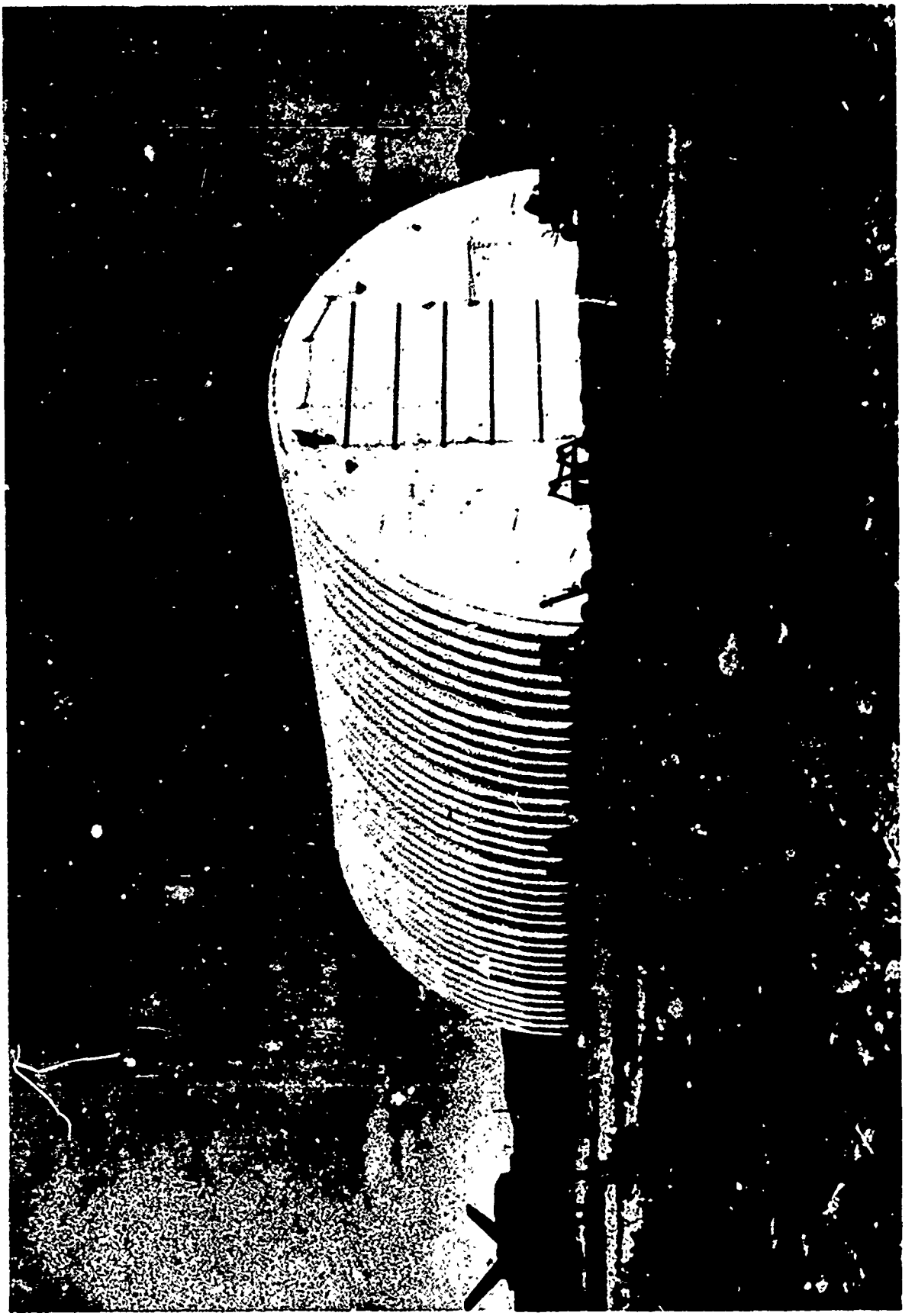
Designed to house the Pershing Missile and provide weather protection to personnel while performing maintenance and check-out operations under Arctic conditions. The shelter can be transported by vehicle or aircraft.

7. Logistical Data:

The shelter was developed for the Missile Command to satisfy operational needs. The requirement for the shelter was cancelled when the Pershing Missile System was phased out. One inflated section with ends costs approximately $3,000.00.

8. Remarks:

Specifications and drawings are available for competitive procurement. The item is suitable for use in desert and temperate climates.



1. Name of Shelter: Tent, Air-Supported, Double Wall, Assembly Area, Nike Hercules Mobile System

2. Type of Shelter:

Non-Rigid
Air-Inflated

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

Shelter is a double wall, air-supported made of 13 - 15 oz. neoprene-hypalon coated nylon cloth with detachable single wall end curtains made of the same fabric. Shelter is made in sections which measure 48' wide, 12' long and 24' high. Sections are joined together to form a shelter of any desirable length. Six men can erect a six section shelter in 4 hours and strike the shelter in 2 hours.

6. Concept of Use:

Designed to provide a large, lightweight, quickly erected shelter for use as a maintenance facility. Shelter can be used wherever electrical power is available. The shelter can be transported by vehicle or aircraft.

7. Logistical Data:

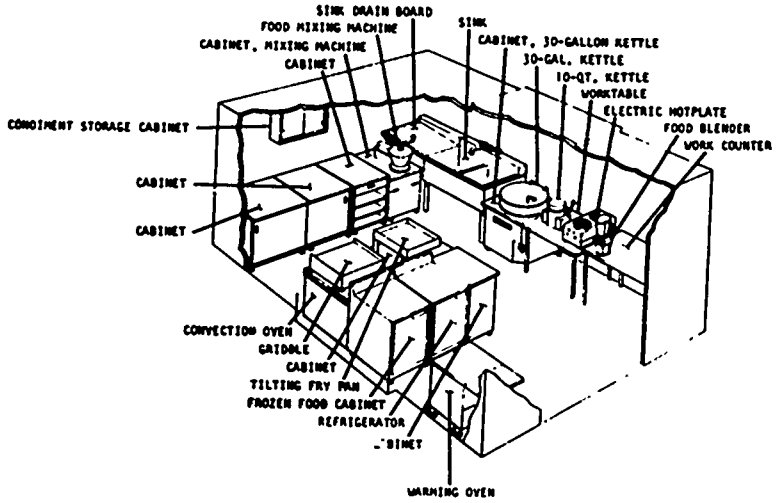
NLABS developed and procured one shelter (6 sections) for the Nike Hercules System. However, the requirement for the shelter was cancelled when the mobile concept of the missile was cancelled. The Air Force used the Army's specification and drawings to procure 344 shelters (2,761 sections) for use in Southeast Asia at a cost of $2,500.00 per section.

8. Remarks:

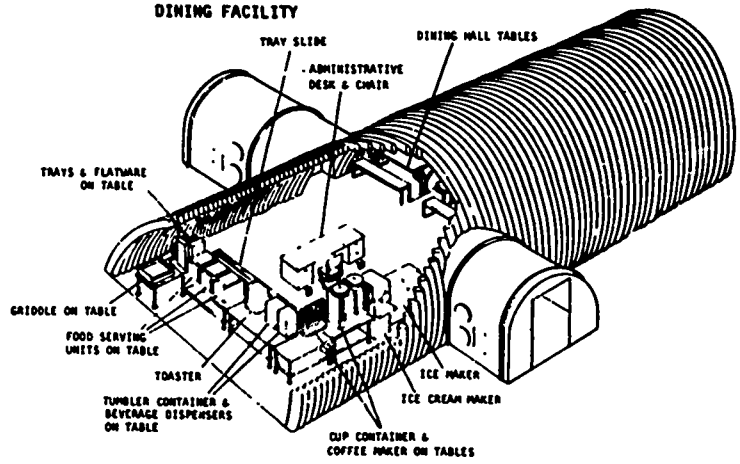
Specifications and drawings are available for competitive procurement. The Air Force experienced problems with seam adhesion in Southeast Asia due to the extreme high temperatures encountered. This was attributed to lack of experience on the part of the manufacturer in cementing large double wall, air-supported structures.

MUST FOOD SERVICE SYSTEM

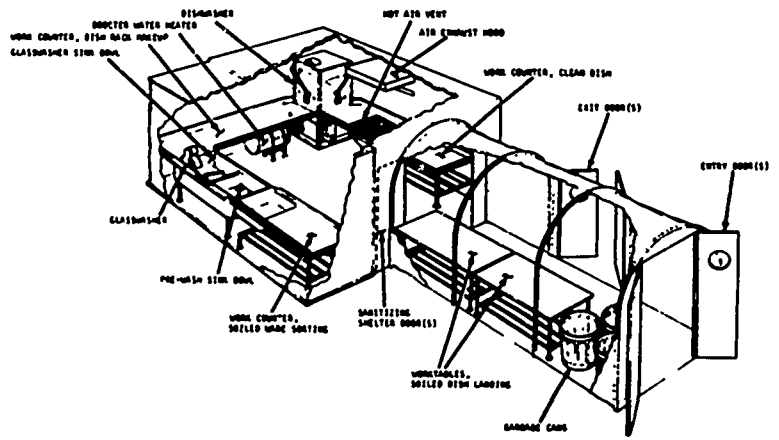
MAIN KITCHEN FACILITY



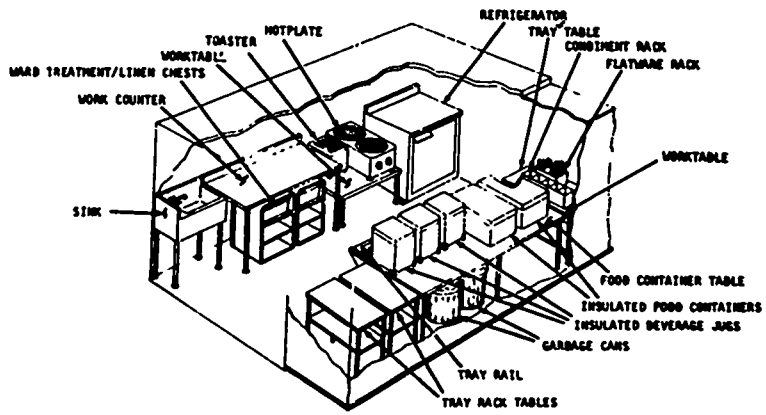
DINING FACILITY



SANITIZING FACILITY



WARD FOOD SERVICE AREA



1. Name of Shelter: MUST Food Service System

2. Type of Shelter:
This system utilizes rigid, expandable shelters for the Main Kitchen Facility and Ward Food Service Area. Refrigeration-Temperature control element utilizes a rigid non-expandable shelter. Double Wall, Air-Inflated Sections are used to form the dining facility.

3. Current Status:
Development Stage

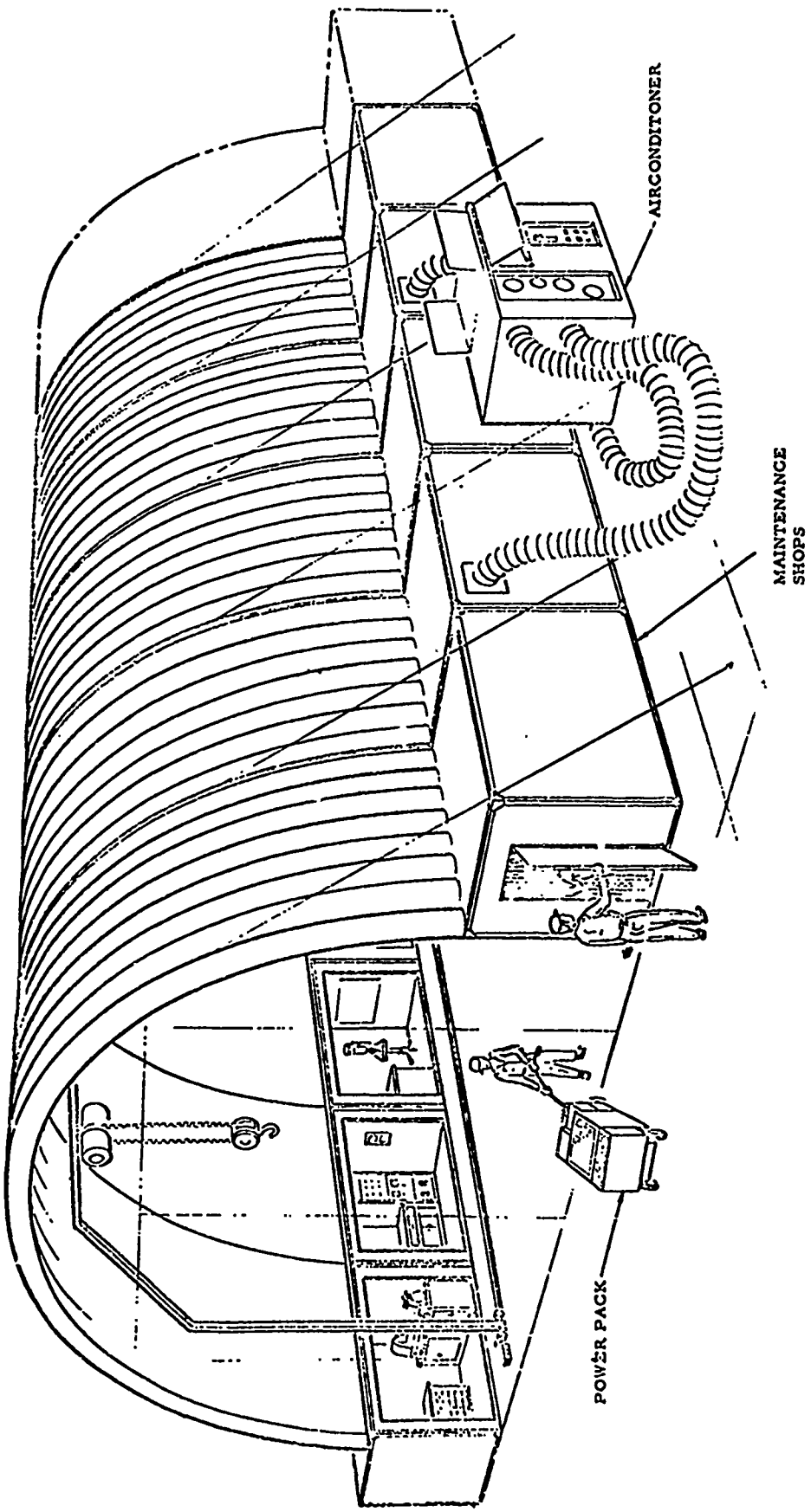
4. Responsible Engineering Activity:
U. S. Army Medical Research and Development Command. NLABS provides technical support in the development of this system.

5. Physical Characteristics:
The rigid expandable shelters are made of paper honey-comb sandwiched between aluminum skin. The Main Kitchen Facility expands on both sides to form an area 18' wide, 12' long and 8' high. The Ward Food Service Area expands on one side only and a fabric enclosure made of neoprene-hypalon with polyurethane foam sandwiched between is used to form a shelter 11' wide, 12' long and 7' high. The Refrigeration-Temperature control element is of rigid 4" duct polyurethane foam and aluminum skin construction. It forms a shelter 8' wide, 12' long and 7' high. The Dining Facility is a double wall air-supported shelter made of synthetic coated polyester cloth. The shelter is 20' wide, 52' long and 10' high.

6. Concept of Use:
The Main Kitchen is complete with electrical and plumbing systems built in. The shelter contains equipment such as a food mixing machine, connection oven, tilting frying pan, refrigerator, etc. The Refrigerator-temperature control element is operated by 400 hz electric and gasoline engine driven unit as a refrigerator for food service and transport element for Hospital biological supplies. The Ward Food Service Area contains microwave ovens, a hotplate, toaster, beverage jugs, etc. The Dining Facility contains dining tables, administration desk and chair, coffee maker, food serving units, griddle, etc.

7. Logistical Data:
The Food Service System is in the development stage. Estimated cost of the shelters are: Main Kitchen Facility - $39,000.00; Dining Facility - $22,000.00; Refrigeration-Temperature Control Element - $7,000.00; and Ward Food Service Area - $5,500.00.

8. Remarks:
The procurement data package suitable for competitive procurement has been prepared. Engineer/Service tests are being conducted on all units.


AIRCONDITONER
MAINTENANCE SHOPS
POWER PACK

1. Name of Shelter: Shelter Unit, Maintenance, Modular, Inflatable, Transportable

2. Type of Shelter:

Combination rigid, expandable and air-supported shelter

3. Current Status:

Proposed QMR
CDOG Para. Nos. 1639b(19) and 1612b(11)

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

This is a portable, all-weather shelter system for maintenance of aircraft, ground vehicles, weapons and other Army equipment. The shelter will be easy to erect, strike and stow, and will be transportable by ship, rail, aircraft, truck, trailer and dolly set. The shelter system will consist of three principal elements, a hangar, an expandable shelter and a portable crane, each of which will be capable of performing its intended function independently of the others as a separate unit, and of being complexed with others as a separate unit and of being complexed with others to form various sized maintenance facilities depending on the level of maintenance being performed. The hangar will have a base width of 50' and an interior peak height of 25' when erected on the ground. When erected atop the expandible shelters, the interior peak height and sidewall clearance will be increased by approximately 7'. The shelter will be extendable in modules of approximately 12' in length.

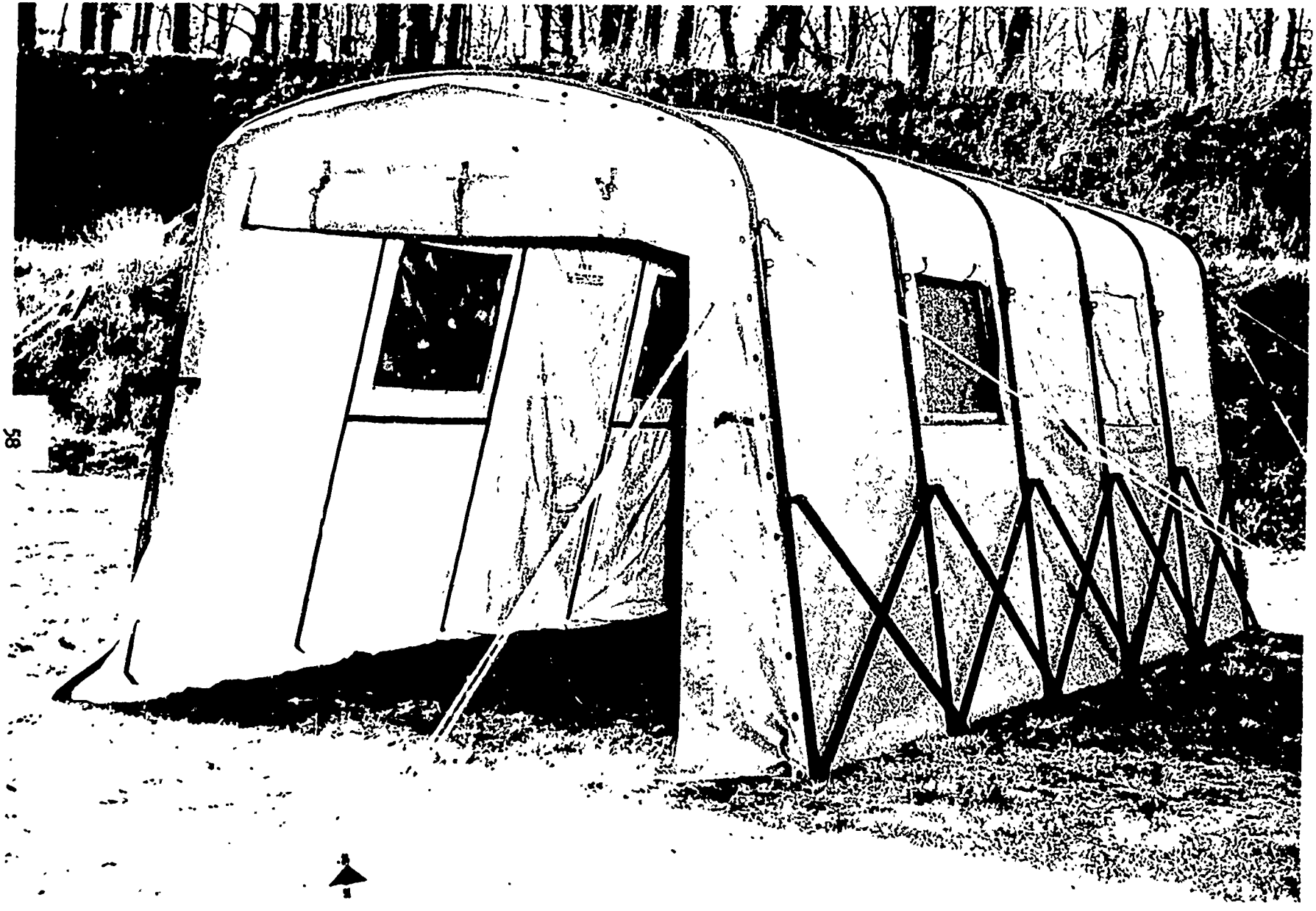
6. Concept of Use:

To provide a large facility with unencumbered floorspace for field maintenance of Army aircraft and ground vehicles.

7. Logistical Data:

None available at this time. However, it is estimated that a six-section inflatable hangar (approximately 72' long) with 12 expandable shelters and a crane will cost approximately $344,000.00.

8. Remarks:



1. Name of Shelter: Tent, Accordion Type

2. Type of Shelter:

Non-Rigid
Frame-Supported

3. Current Status:

Commercial item with military potential

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

The tent is supported by an accordion type frame made of 1" square aluminum tubing colored olive drab. The fabric is 16.5 oz., neoprene coated nylon, olive drab outside and white inside. The tent is provided with four screened windows equipped with blackout flaps. The ends of the tent are provided with two vertical slide fasteners. When the slide fasteners are opened, a door 6' wide by 6'6" high is provided. An inner partition, which includes a personnel door, is snapped in place 4' from the end wall making a built-in vestibule. Two tents can be joined together to form a larger shelter. The tent measures 10' wide, 20' long and 8' high. The floor area is 200 sq.ft. and the tent weighs 225 pounds. Four men can erect a shelter in 15 minutes and strike the shelter in 10 minutes.

6. Concept of Use:

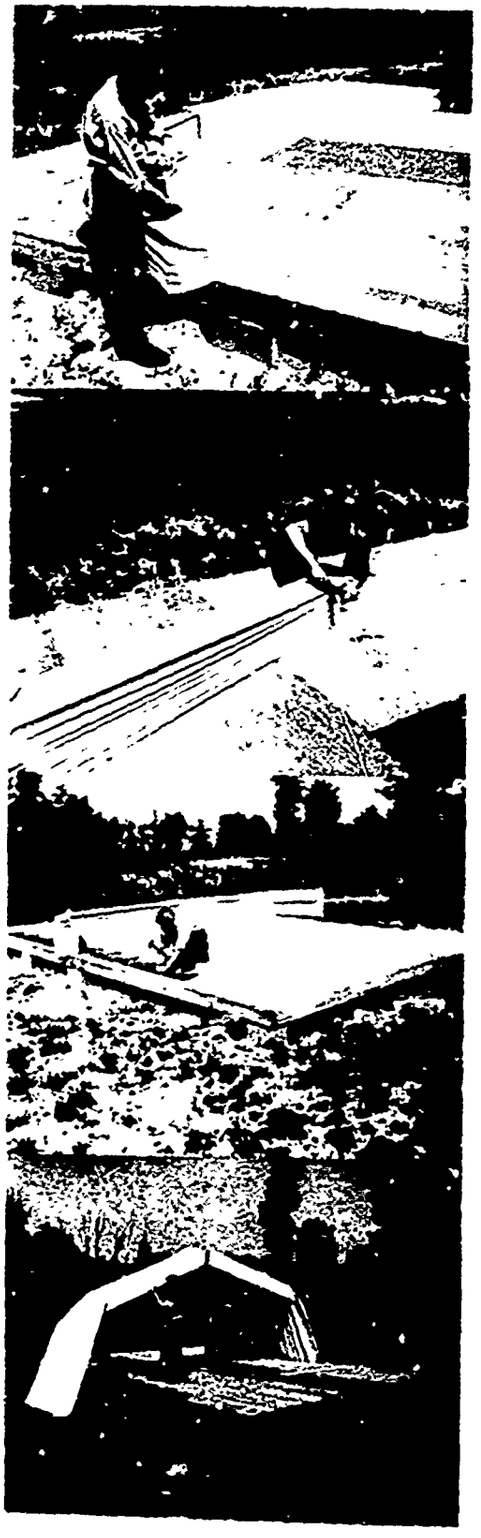
Provides a quickly erected shelter for general purpose use.

7. Logistical Data:

This is an experimental item which has been procured in small quantities and tested by the Marine Corps in several different sizes. The 10' by 20' shelter is estimated to cost $890.00.

8. Remarks:

Deficiencies found in the tents tested by the Marine Corps are being corrected and further testing of the shelter is planned.



1. Name of Shelter: Shelter, Plydom

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Commercial item with military potential

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

The shelter is comprised of two one-piece sections which when joined together form the roof and walls of the building. The sections are made of rigid urethane foam, faced on both sides with bleached kraft and a coating of white polyethylene. The roof-wall sections are made in 14" pleats which fold similar to an accordian. The ends of the shelter are made of plywood with a screened door and windows. The shelter measures 17' wide, 21' long and 10' high. The floor area is 320 sq.ft. and the shelter weighs 335 pounds. Two men can erect a shelter in 1 hour and strike the shelter in 45 minutes.

6. Concept of Use:

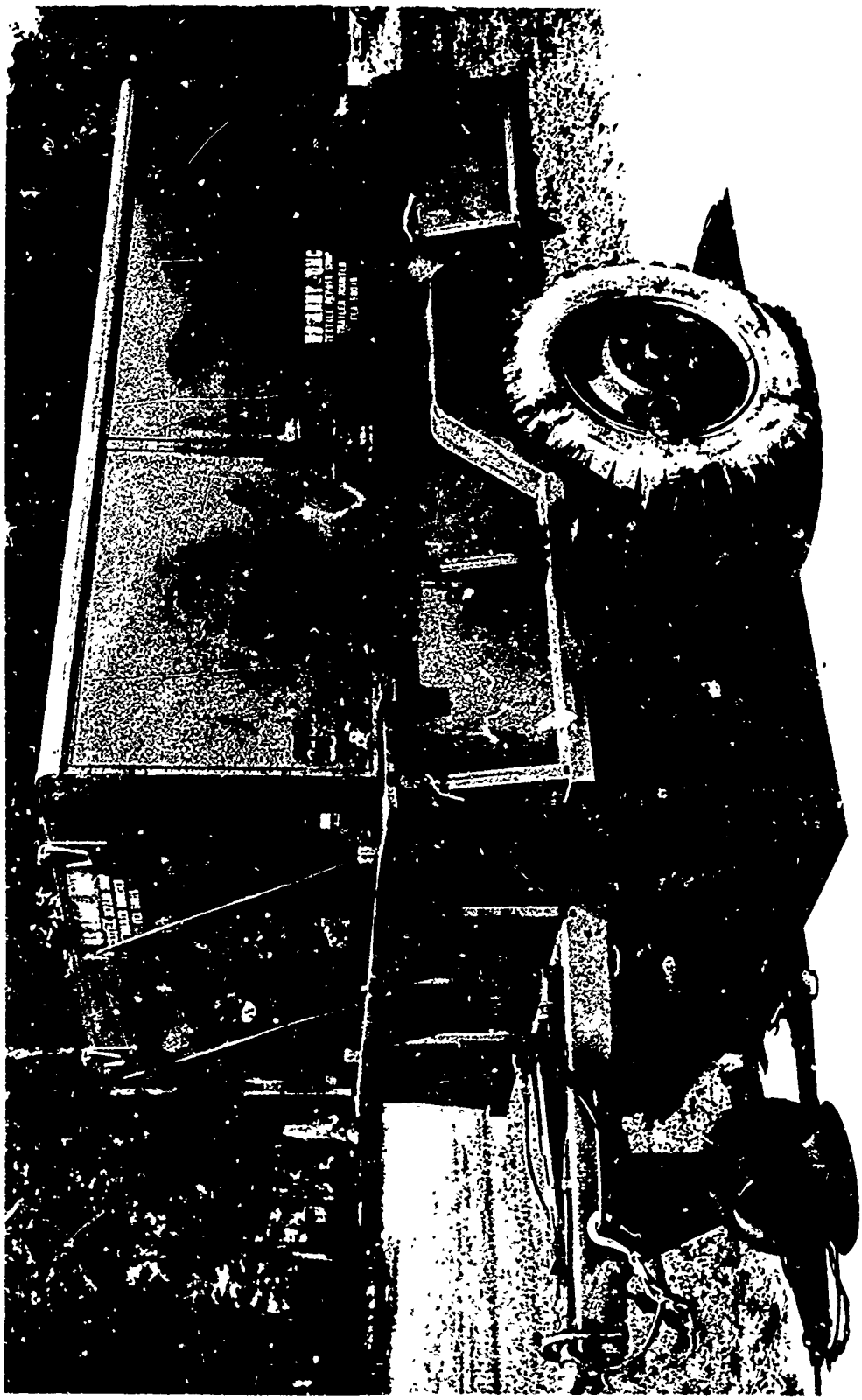
Provides a quickly erected semi-permanent shelter for general purpose use.

7. Logistical Data:

This item is being evaluated for possible use by the Army as a semi-permanent shelter for general purpose use. The above described shelter is estimated to cost $900.00.

8. Remarks:

The Air Force has procured a quantity of 300 similar paper/foam shelters in a different configuration for evaluation in their "BARE BASE" concept.



1. Name of Shelter: Textile Repair Shop, Trailer Mounted, Clothing Repair Shop, Trailer Mounted

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

6'7" wide, 9'1" long and 4'4" high. Weight of shelter approximately 1,000 pounds. Aluminum superstructure with aluminum skin.

6. Concept of Use:

Used to store textile and clothing repair equipment for field use. Transported on standard 1-1/2 ton cargo trailer. Shops operated inside tents during hot, cold or rainy weather.

7. Logistical Data:

Number of items in the system unknown. Eighty Textile and forty-seven Clothing shops furnished under recent contracts at a cost of approximately $4,000.00 for each shelter.

8. Remarks:

Specifications and applicable drawings available for procurement. All Standard "A" items built by York Astro Co., Mt. Wolf, Pa. Item is suitable for issue. Instruction manuals are adequate and no outstanding maintenance problems exist.

1. Name of Shelter: Shoe Repair Shop, Trailer Mounted

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

7'2" wide, 9'9" long and 4'5" high. The weight of the shelter is approximately 1,200 pounds and consists of an aluminum superstructure with aluminum skin.

6. Concept of Use:

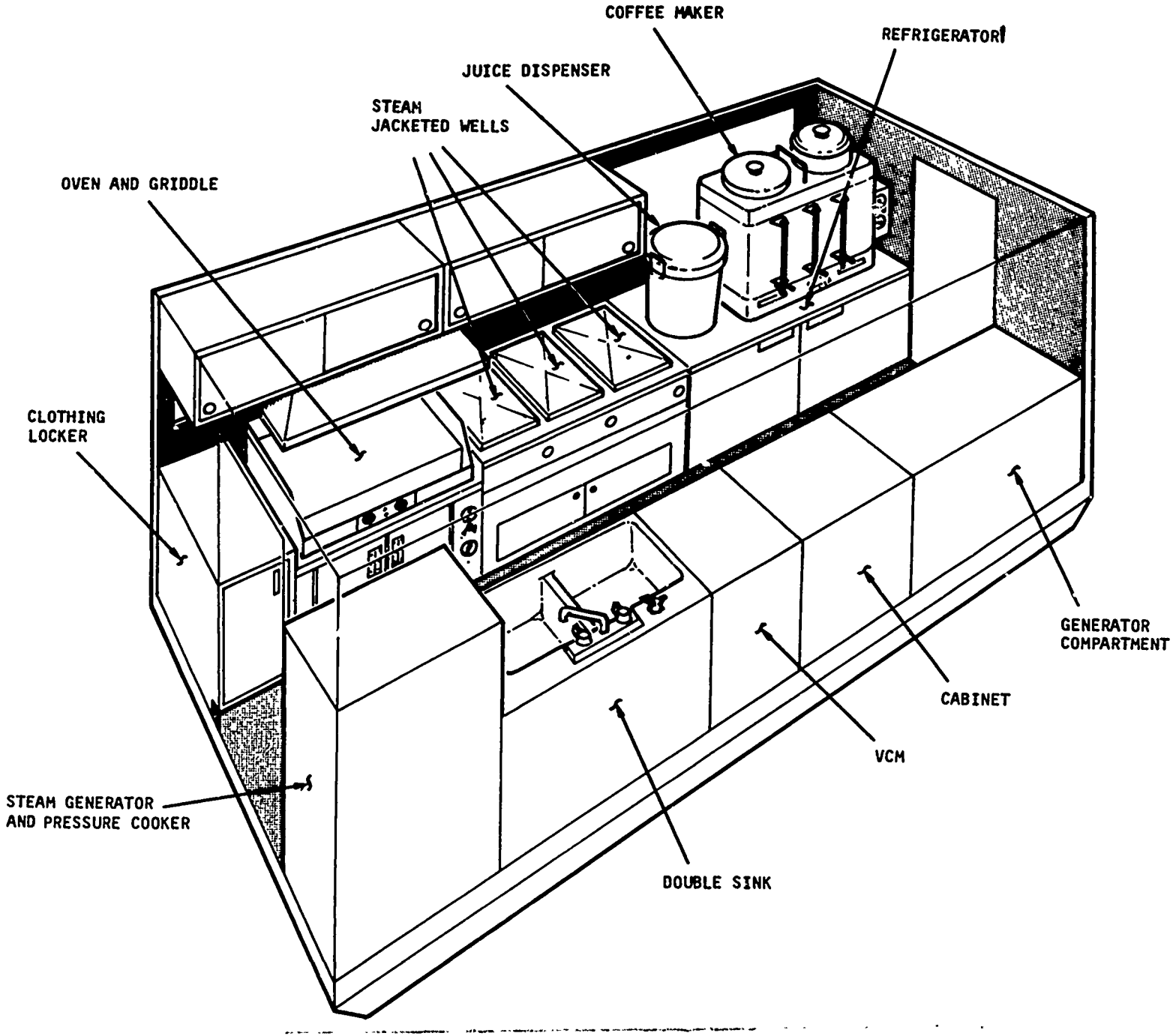
The shop is used to store shoe repair equipment for field use and is transported on a standard 1-1/2 ton trailer. The shop can be set up to operate inside a tent during inclement weather but may be operated in any reasonably protected area accessible to conventional vehicles.

7. Logistical Data:

Number of shops in system unknown. 103 shops furnished under recent contracts at a cost of approximately $4,500.00 for each shelter.

8. Remarks:

Specification and applicable drawings available for procurement. All Standard "A" items built by York Astro Co., Mt. Wolf, Pa. Item is suitable for issue. Instruction manuals are adequate and no outstanding maintenance problems exist.


COFFEE MAKER
REFRIGERATOR
JUICE DISPENSER
STEAM
JACKETED WELLS
OVEN AND GRIDDLE
CLOTHING
LOCKER
GENERATOR
COMPARTMENT
CABINET
VCM
STEAM GENERATOR
AND PRESSURE COOKER
DOUBLE SINK

1. Name of Shelter: Modular Mobile Field Kitchen

2. Type of Shelter:

Rigid

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

The shelter is made of aluminum honey-comb and foam sandwiched between two sheets of aluminum. The shelter is non-expandable and measures 86" wide, 163" long and 96" high. A door is provided at each end for easy entrance with a side opening panel for serving food.

6. Concept of Use:

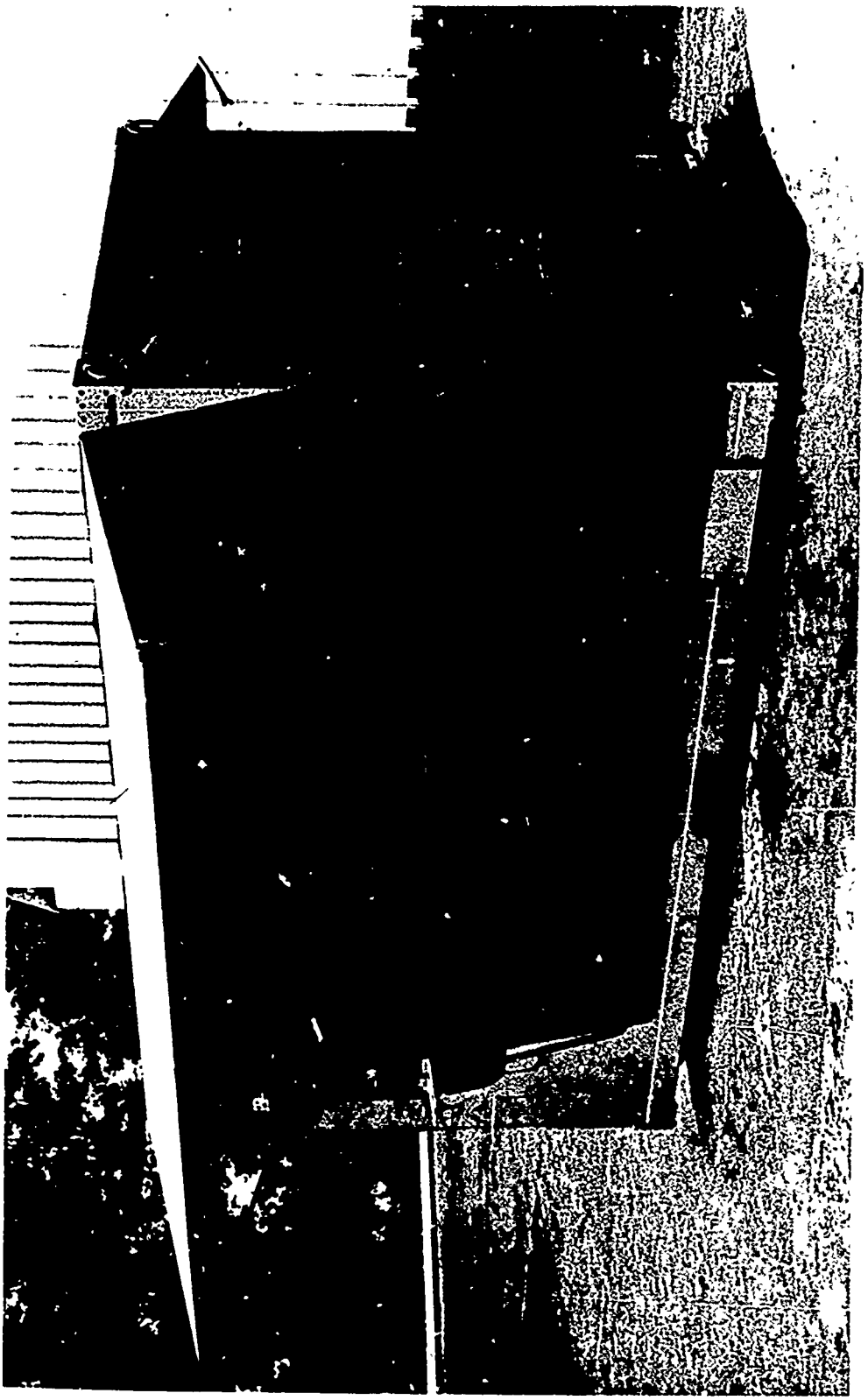
This is a mobile kitchen which can be hauled by truck, dolly set or helicopter lifted to the site. The shelter is self-contained and fully equipped for cooking and field serving. Limited cooking can be accomplished enroute.

7. Logistical Data:

Item is currently in the development stage. Estimated cost of the shelter in production is $7,000.00.

8. Remarks:

A Procurement Data Package suitable for competitive procurement will be available at the conclusion of the contract.



1. Name of Shelter: SPEED Mobile Kitchen

2. Type of Shelter:

Rigid (honey-comb with foam)

3. Current Status:

Exploratory Development

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

The shelter is constructed of foam filled honey-comb sandwiched between aluminum sheets. The shelter is a non-expandable design with the food service equipment built in. The shelter is 7' high, 8' wide and 12' long. It is designed for use with the standard Dolly Set, loaded on a cargo vehicle, or aircraft lifted. It is completely self-contained with no other than normal logistical support of food, fuel and water.

6. Concept of Use:

Designed as a highly mobile kitchen to support company size units in preparation and serving of hot food.

7. Logistical Data:

Production cost estimates of the shelter only in quantities of 100 or more is $8,000.00.

8. Remarks:

Work is presently in progress to finalize the concept formulations, the acceptance of which will allow for initiation of a development program.

1. Name of Shelter: Portable Outside Toilet (POT) - BARE BASE

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

The construction of the shelter walls, roof and floor consists of preformed polyurethane foam epoxied between .040 inch 6061-T6 aluminum. The skeletal structure is of welded aluminum extrusions. Dimensions are 40-1/4" wide, 50-1/4" long and 50" high when collapsed and 40-1/4" wide, 50-1/4" long and 87-1/2" high when expanded. In collapsing, the top shelter half slides over and envolopes the bottom half. The shelter weighs 325 pounds empty and 525 pounds with equipment.

6. Concept of Use:

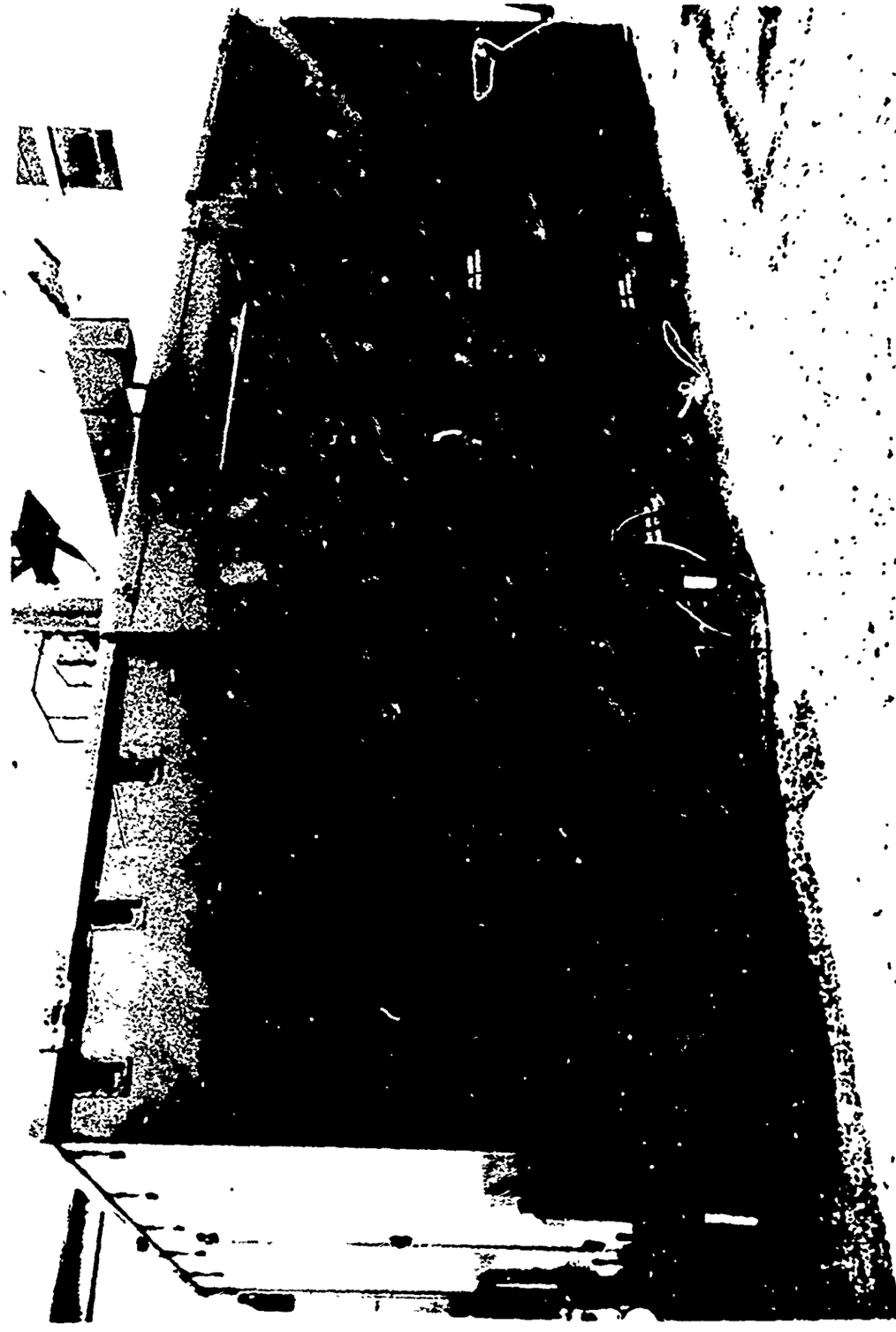
The Portable Outside Toilet is a component of U.S. Air Force Bare Base System. It is for use at remote sights. Only electrical power and fuel are required for operation. Four items will fit on a 463L pallet for air transport. The item requires 1 man-hour of effort to make it operational.

7. Logistical Data:

Item is currently in the development state. Estimated cost following type classification is $2,500.00 per unit.

8. Remarks:

None



1. Name of Shelter: Latrine Facility - BARE BASE

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

The construction of the shelter walls, roof and floor consist of paper honey-comb and polyurethane foam epoxied between .032 and .050 inch 6061-T6 aluminum sheets. The skeletal structure is of aluminum extrusions integral with the panels. When collapsed the shelter is 13' wide, 9' long and 8' high. When expanded, the width and height remain unchanged and the length increases to 20'. The shelter weighs 3,500 pounds less equipment. Total weight is 7,200 pounds.

6. Concept of Use:

The Latrine Facility was developed to support the U.S. Air Force BARE BASE System. It is a self-contained, expandable, air transportable shelter complete with 12 lavatories, 1 urinal, 6 showers and 6 combustion type toilets. All equipment necessary to perform its intended function is contained within the collapsed shelter. The item is equipped with rails compatible with the 463L aircraft loading system. Set-up time is less than 10 man-hours. Movement is infrequent and is limited to air transport from storage to user site.

7. Logistical Data:

This is a development item. Four units have been fabricated and eight are under construction. Estimated cost of shelter alone is $24,000.00.

8. Remarks:

Item is currently undergoing redesign to incorporate the split-latrine concept, i.e.: lavatories and showers in one shelter and toilets in a second shelter.

1. Name of Shelter: MUST Ward Container

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Medical Research and Development Command. NLABS provides technical support during procurement and modifications. MECOM has logistic responsibility for the item.

5. Physical Characteristics:

This is a rigid container which expands on one side only and a fabric enclosure is used to obtain a shelter 11' wide, 12' long and 7' high. The container is made of honey-comb sandwiched between aluminum sheets and the fabric portion is made of neoprene/hypalon with polyurethane foam sandwiched between the coated fabrics.

6. Concept of Use:

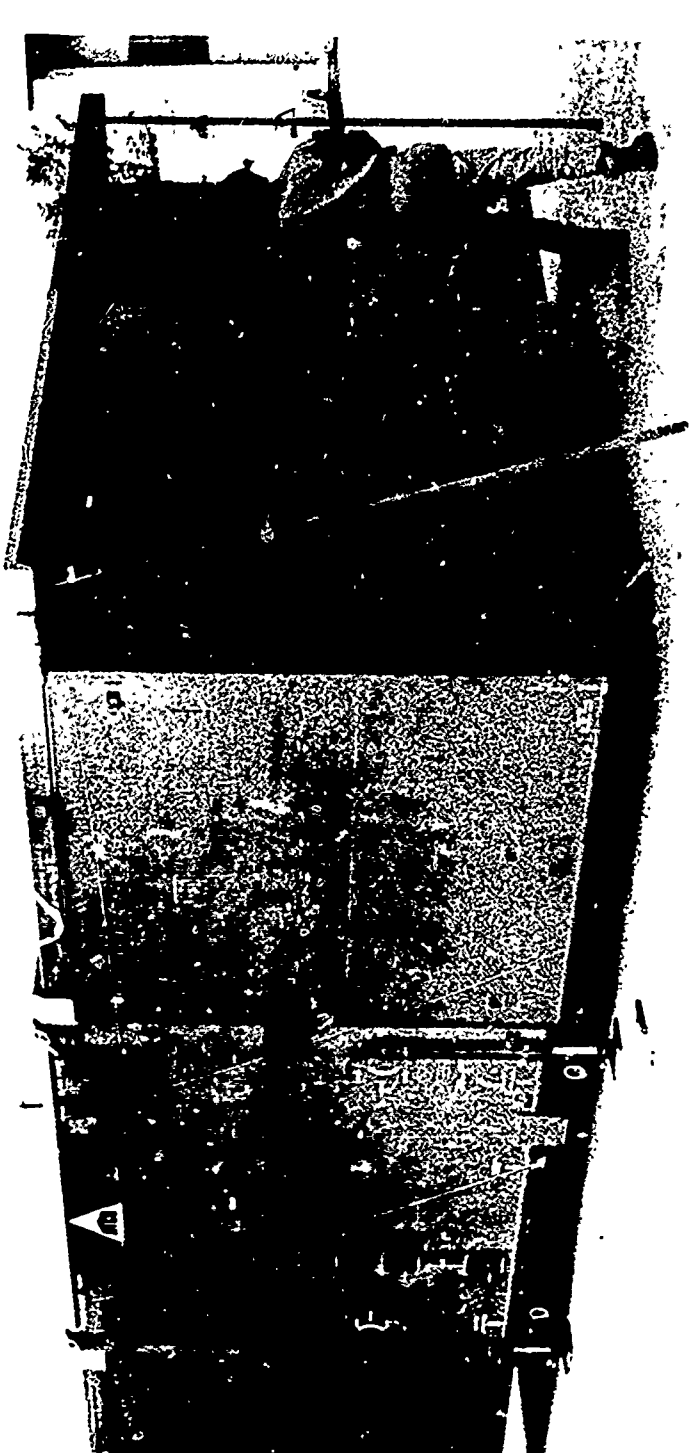
The shelter is used as the shipping container for a complete 200 bed inflatable hospital ward complete with cots and ancillary equipment and as a pre-operative room, administration room, latrine and shower units and a general utility shelter within the MUST Field Hospital Complex. When folded for shipment, the container can be transported by helicopter, truck, or dolly set.

7. Logistical Data:

Seventeen of these shelters were produced on an R&D contract. MECOM is currently procuring 400 of these shelters at a cost of $9,000.00 each.

8. Remarks:

Specifications and drawings for the shelter are available for competitive procurement.



1. Name of Shelter: ATCO Expandable Shelter

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

The shelter is constructed of foa.. filled honey-comb sandwiched between aluminum sheets. When packed, the shelter is 13' wide, 9' long and 8' high. When expanded, the height and width remain the same with the length increasing to 21'. A skid/rail system has been built in and allows complete compatibility with the 463L cargo handling system. The shelter weighs 2,300 pounds and can be expanded without special tools in less than 20 minutes.

6. Concept of Use:

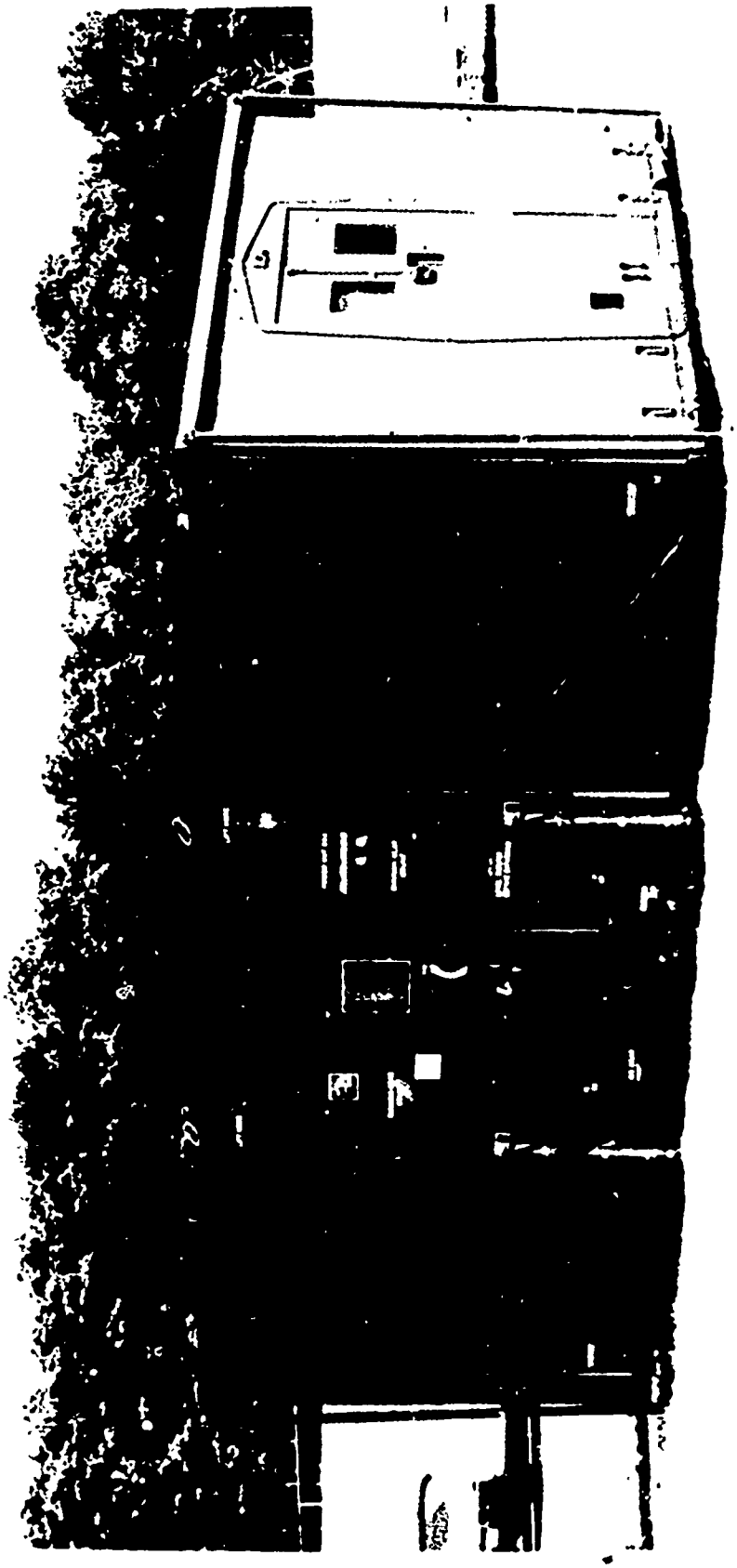
Designed as a highly mobile shelter which houses the integrated kitchen facility for the Air Force BARE BASE Group.

7. Logistical Data:

Six shelters were developed for the Air Force BARE BASE Program at a cost of $21,000.00 each. It is estimated that on larger procurements of the shelter, the cost can be reduced to $15,000.00 each. None of these shelters are in stock.

8. Remarks:

A Technical Data Package will be furnished NLABS at the completion of the contract. No special training is required for erection of this item. Maintenance problems and suitability of the item will be available after evaluation by the Air Force.



1. Name of Shelter: MUST Expandable Shelter

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Medical Research and Development Command. NLABS furnishes technical support in the development, procurement and product improvement of the shelter. MECOM has logistic responsibility for the shelter.

5. Physical Characteristics:

The shelter is made of paper honey-comb with aluminum skin sandwich construction. Both sides of the shelter expand to form an area 18' wide, 12' long and 8' high. The shelter has complete electrical and plumbing systems built in and need only be connected to an external power source and water supply.

6. Concept of Use:

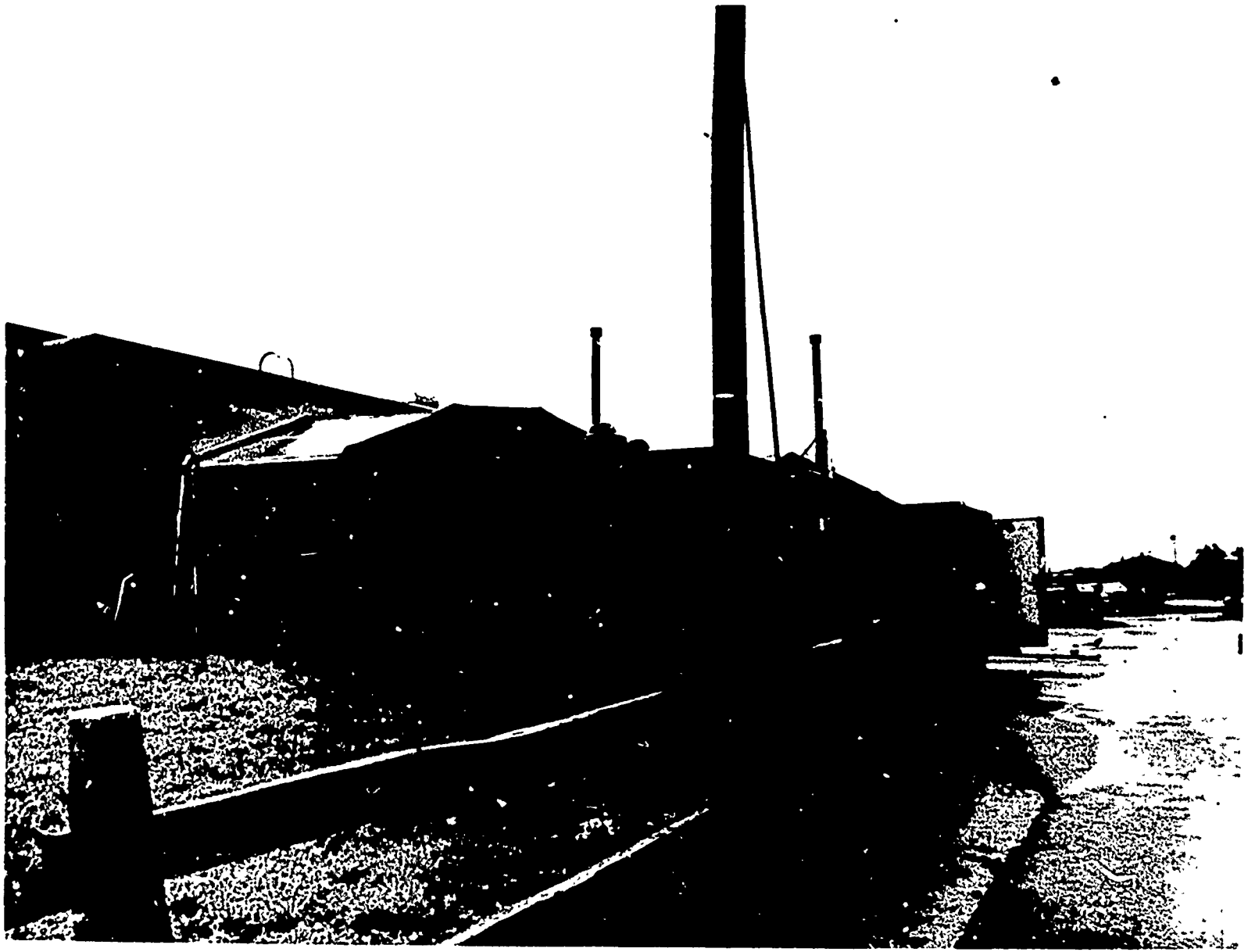
The shelter is completely outfitted to serve as a surgery, x-ray or dental laboratory and sterilization or central material storage room. When the shelter is folded for shipment, it can be transported by helicopter, truck or dolly set.

7. Logistical Data:

A quantity of 165 each have been procured to date at a cost of $39,000.00 each.

8. Remarks:

Specifications and drawings are available for competitive procurement. The item has been found suitable in Southeast Asia. Training and maintenance manuals are available for use with the item.



1. Name of Shelter: Food Service Complex (Air Force Bare Base)

2. Type of Shelter:

Combination of rigid, expandable and rigid panel type shelters arranged in such a manner to form an efficient food service complex

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

This complex consists of the kitchen housed in an expandable shelter, a special purpose expandable storage shelter which interfaces with the kitchen, two field refrigerators 150 cubic feet each which interface with the storage shelter, a dining facility which utilizes an Air Force general purpose shelter and folding lightweight table-bench combinations, and a sanitation area and equipment.

6. Concept of Use:

Designed to meet the Air Force requirements of feeding 250 men in one hour under the conditions imposed by a Bare Base type of operation.

7. Logistical Data:

Six of these complexes are being developed for the Air Force Bare Base Program.

8. Remarks:

The complete facility is being tested by the Air Force. Comments regarding suitability of the items will be available when the Air Force evaluation has been completed.

1. Name of Shelter: Annex, Printing Plant, Semi-Trailer Mounted

2. Type of Shelter:

Non-Rigid
Frame-Type

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Natick Laboratories

5. Physical Characteristics:

The shelter is an aluminum frame covered with Cloth, Cotton Duck, 9.85 oz., FWWMR with openings for three M 146C Semi-Trailers. The frame consists of gables mounted on the roof of the semi-trailers with tubular corner posts for support. The floor is of an aluminum accordion-type construction supported by "I" beams attached to the semi-trailers and the corner post. Jacks under the floor give additional support. The overall dimensions are 12' wide, 13' long and 12' high. Weight is approximately 500 pounds.

6. Concept of Use:

The Annex provides a sheltered passageway between the three semi-trailer vans of the Printing Plant S.W. Semi-Trailer Mounted. The cover permits a supply truck to unload supplies onto the floor of the Annex under blackout conditions. The Annex is dismantled and stored within the three semi-trailers for transport.

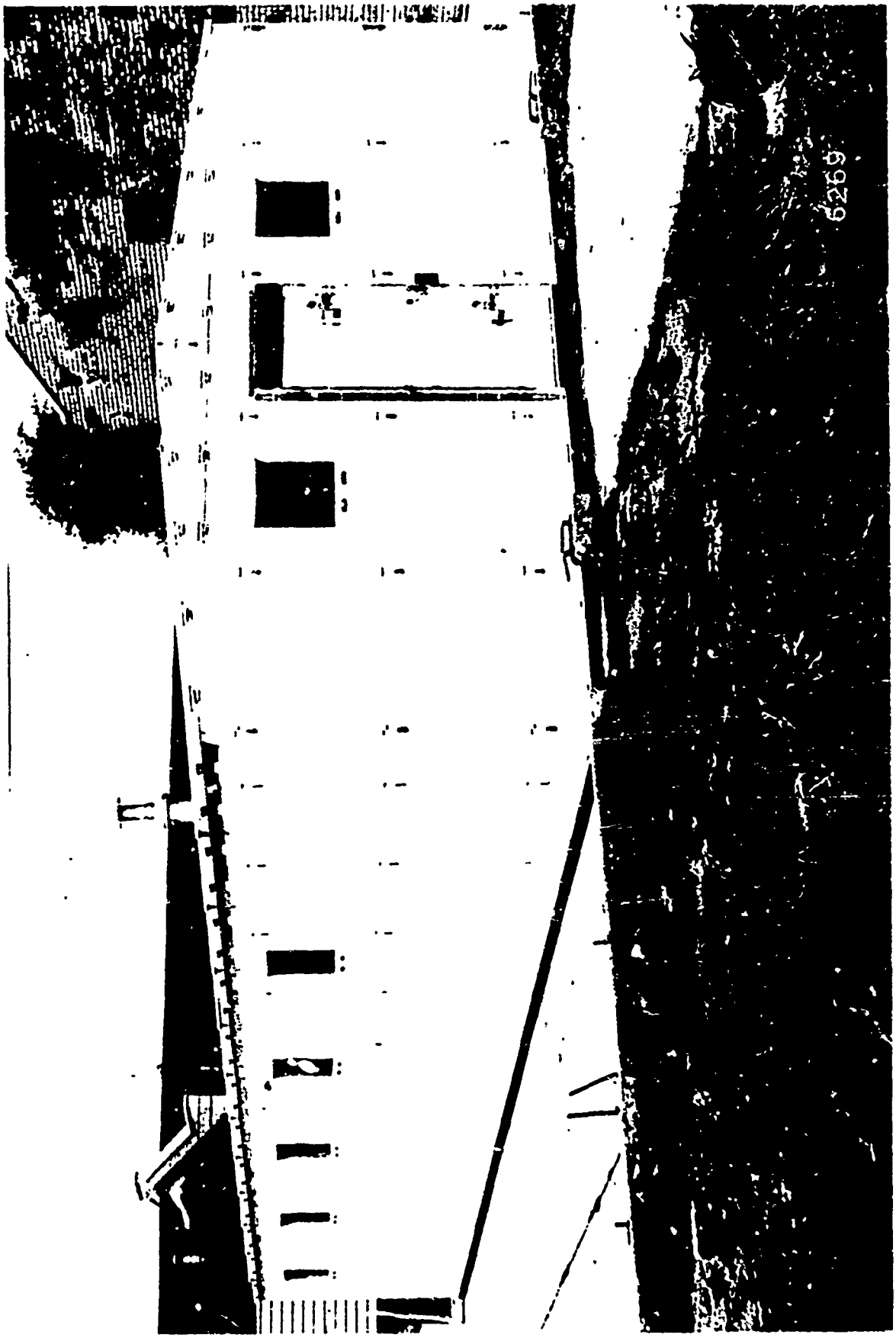
7. Logistical Data:

The Annex was developed by NLABS. Six have been procured by NLABS for printing plants located in Europe, SEA and USA. The complete shelter cost is $10,000.00. No Annexes are available in stock.

8. Remarks:

Specification MIL-P-43478 and drawings are available for competitive procurement. A maintenance package and training literature are available. No EIR's have been received, however, user personnel in SEA, Fort Bragg and Reserve Units in CONUS indicate that the Annex has too many jacks to support the floor and the accordion type floor presents a safety hazard.

U.S. Army Mobility Equipment Research & Development Center



1. Name of Shelter: Arctic Shelter - T-5

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Mobility Equipment Research & Development Center, Fort Belvoir, Virginia

5. Physical Characteristics:

Building size is 20' span x 48' length with length variable in 4 ft. increments. Weight of a 20' x 48' building is 12,130 pounds. Expedient sills are required as a foundation. Building material is steel and wood. Insulation is 2-1/2" thickness fiberglass. Net cube for 20' x 48' building is 957 ft^3.

6. Concept of Use:

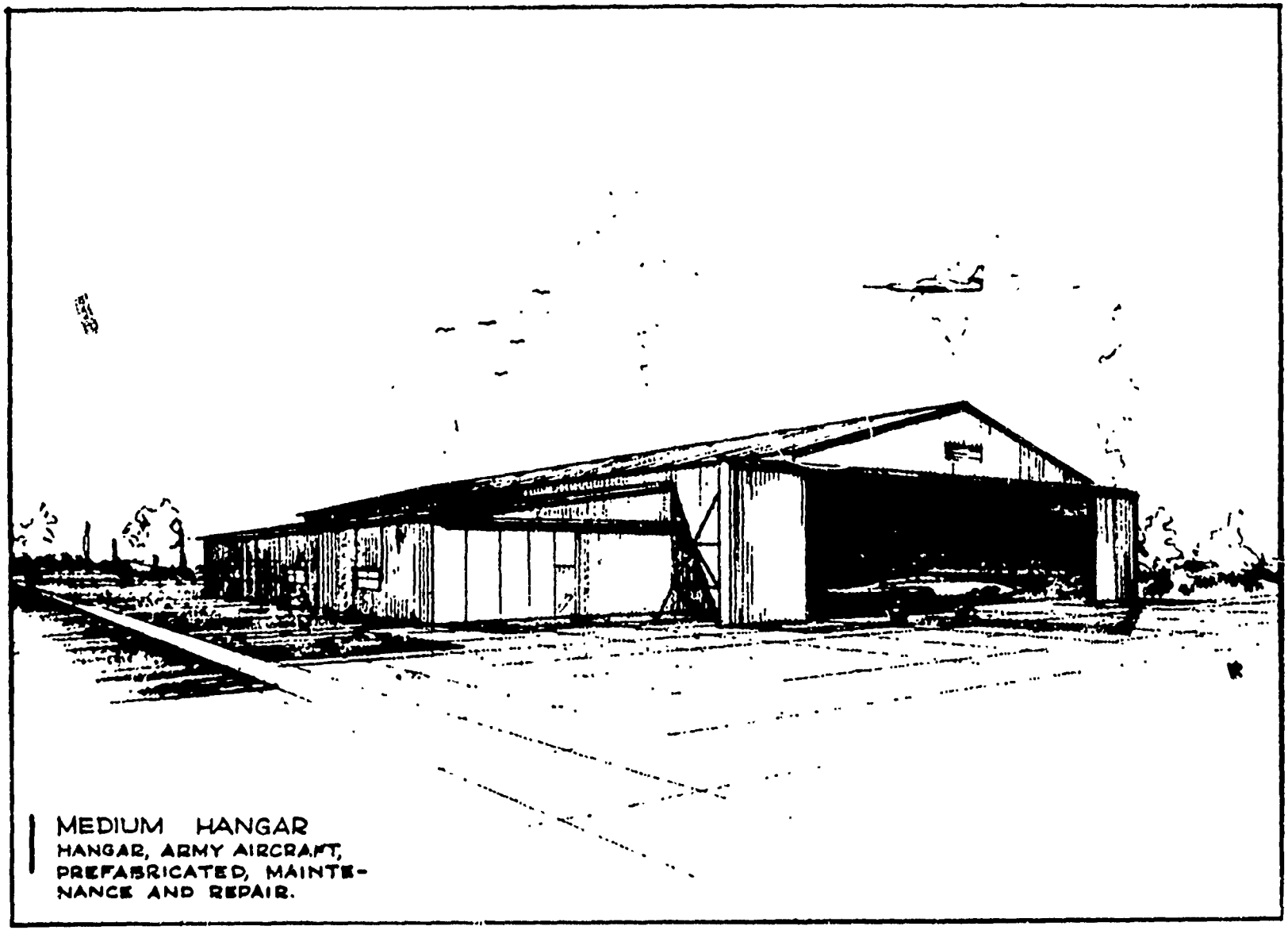
Utilize this shelter for arctic troop housing, etc. in all climates. The building is to be rapidly erected, dismantled, and reassembled permitting complete re-use of all materials. Erection time is 65 man-hours for the 20' x 48' building.

7. Logistical Data:

Estimated Cost: $10,000.00.

8. Remarks:

Type Classification: Standard A, Item 2270, CETC, MTG 260, dated 6 September 1955. Military Specification is MIL-B-14199, FSN is 5410-292-9919.



MEDIUM HANGAR
HANGAR, ARMY AIRCRAFT, PREFABRICATED, MAINTENANCE AND REPAIR.

1. Name of Shelter: Hangar, Medium, Prefabricated

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Mobility Equipment Research & Development Center, Fort Belvoir, Virginia

5. Physical Characteristics:

Building size is 75' span x 160' length. Net weight (estimated) - 135,000 pounds. Concrete footings are required as a foundation. Building material is steel.

6. Concept of Use:

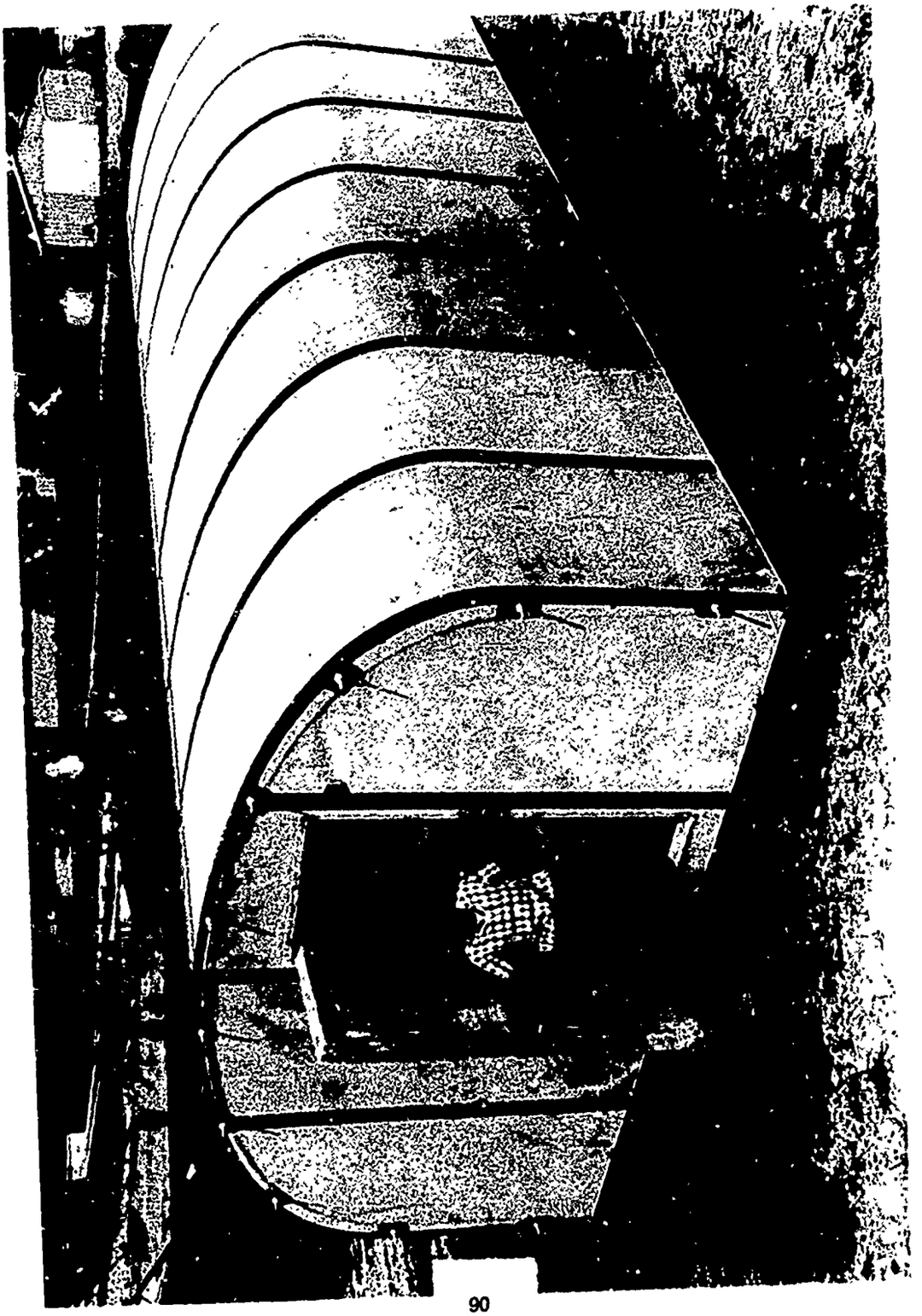
Utilize this hangar for Army Aircraft Maintenance and Repair in temperate climates. This hangar is designed for dismantling and reassembly in the field by unskilled personnel, permitting maximum re-use of materials.

7. Logistical Data:

Estimated Cost: $50,000.00.

8. Remarks:

Type Classification - None. Military Specification is MIL-H-52511. FSN - None.



1. Name of Shelter: Rigid Foam Plastics Building - 16 ft. Span

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U. S. Army Mobility Equipment Research & Development Center, Fort Belvoir, Virginia

5. Physical Characteristics:

Building size is 16' span x 48' length with length variable in 4 ft. increments. For a 16' x 48' building, net weight - 2,900 pounds, shipping weight - 3,325 pounds and shipping cube - 53 $ft.^3$. Foundation required is either concrete slab or a field expedient. Walls are polyurethane foam (2 $lb/ft.^3$) with average thickness - 4". This provides insulation - 2 x rock wool. Outside building height - approximately 9-1/2 ft. at center span.

6. Concept of Use:

Utilize this building as a General Purpose Shelter in all climates. For a 16' x 48' building, fabrication time (on site) - 90 man-hours. Erection time - 65 man-hours.

7. Logistical Data:

Estimated R&D Cost - $3,100 for a 16' x 48' building. Molds are not available at this time.

8. Remarks:

Type Classification - None; FSN - None; Military Specification - None. This shelter could be obtained by Purchase Description.

1. Name of Shelter: Rigid Foam Plastics Building - 20 ft. Span

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U. S. Army Mobility Equipment Research & Development Center, Fort Belvoir, Virginia

5. Physical Characteristics:

Building size is 20' span x 48' length with length variable in 4 ft. increments. For a 20' x 48' building; net weight - 3,200 pounds, shipping weight - 3,500 pounds, and shipping cube - 67 $ft.^3$. Foundation required is either concrete slab or a field expedient. Walls are polyurethane foam (2 lb/ft^3) with average thickness - 4". This provides insulation - 2 x rock wool. Outside building height - approximately 9-1/2 ft. at center span.

6. Concept of Use:

Utilize this building as a General Purpose shelter in all climates. For a 20' x 48' building, fabrication time (on site) - 90 man-hours, erection time - 65 man-hours.

7. Logistical Data:

Estimated R&D Cost - $3,300.00 for 20' x 48' building. Molds have been available since 30 June 1967.

8. Remarks:

Type Classification - None. FSN - None. Military Specification - None. This shelter could be obtained by Purchase Description.

1. Name of Shelter: Prefabricated Building System, Type I (Barracks)

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Mobility Equipment Research & Development Center, Fort Belvoir, Virginia

5. Physical Characteristics:

Building size is 20' span x 50' length (10' mod), with widening provisions to obtain a 30' span. Net weight - 15,000 pounds, net cube, 400 $ft.^3$. Field expedient foundations are required. Building material is steel. Insulation is 1" thick fibrous glass felt.

6. Concept of Use:

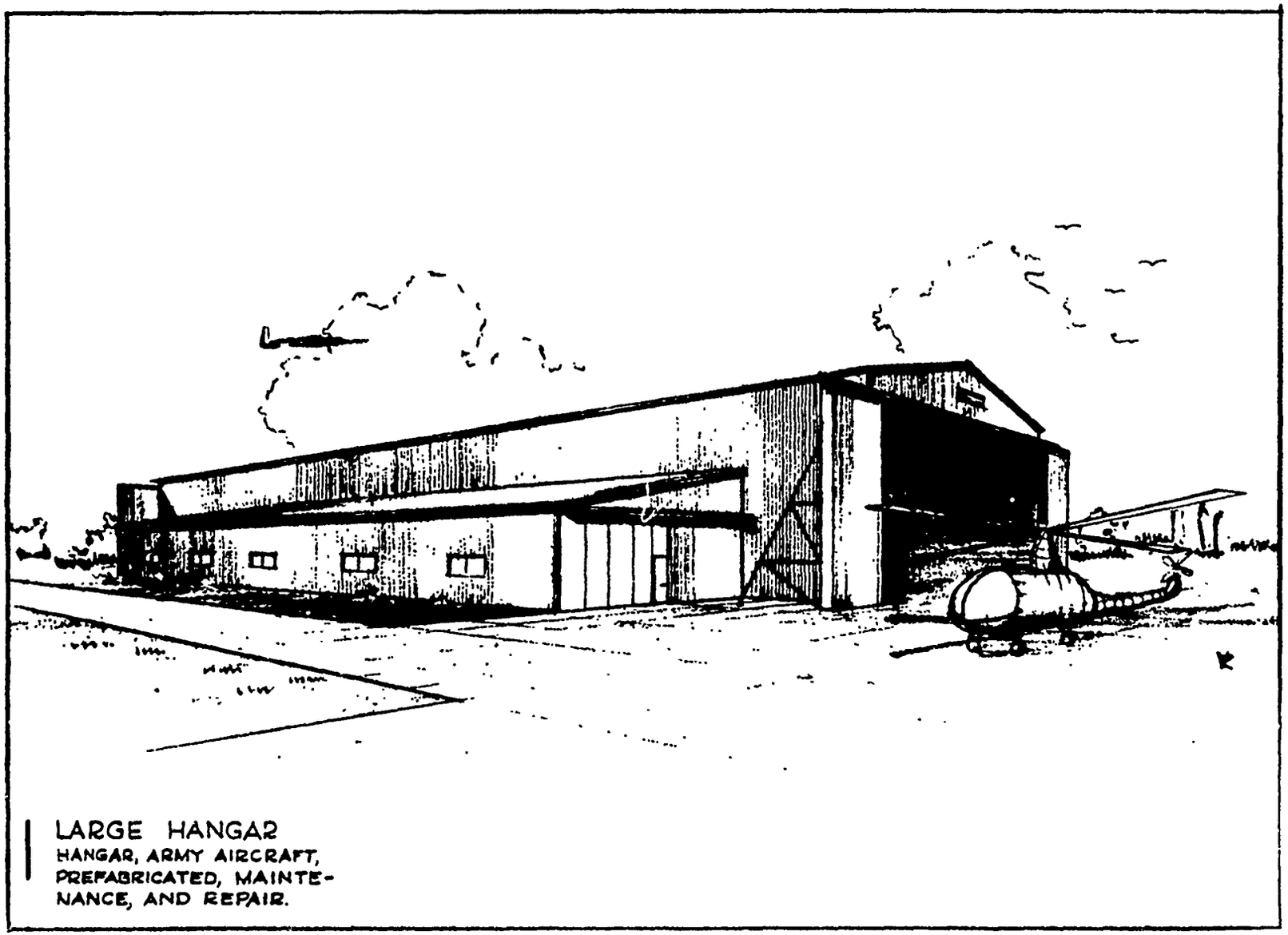
This prefabricated building is intended for use as a barracks or general purpose shelter in temperate climates. The building is designed with capability of being erected, dismantled, and re-erected by unskilled personnel without benefit of special tools. Erection time is 250 man-hours for 20' x 50' building.

7. Logistical Data:

Estimated Cost - $5,000.00.

8. Remarks:

Type Classification - Standard A, CETC MTG 297, Item 2925 dated 3 October 1958. Military Specification is MIL-B-52071. FSN is 5410-585-7616.



LARGE HANGAR
HANGAR, ARMY AIRCRAFT, PREFABRICATED, MAINTENANCE, AND REPAIR.

1. Name of Shelter: Hangar, Large, Prefabricated

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Mobility Equipment Research & Development Center, Fort Belvoir, Virginia

5. Physical Characteristics:

Building size is 75' span x 260' length. Net weight (estimated): 220,000 pounds. Concrete footings are required as a foundation. Building material is steel.

6. Concept of Use:

Utilize this hangar for Army Aircraft Maintenance and Repair in temperate climates. This hangar is designed for dismantling and reassembly in the field by unskilled personnel, permitting maximum re-use of materials.

7. Logistical Data:

Estimated Cost: $80,000.00.

8. Remarks:

Type Classification: None. Military Specification is MIL-H-52511. FSN - None.

1. Name of Shelter: Shelter, Prefab, Hemispherical, 20 Ft. Dia.

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Mobility Equipment Research & Development Center, Fort Belvoir, Virginia

5. Physical Characteristics:

Building size is 20 ft. dia (hemispherical). Net weight, 760 pounds; gross cube, 144 $ft.^3$. Building material is steel, wood and cotton duck.

6. Concept of Use:

This shelter is intended for use as NIKE and M-33 radar protective shelters and also as general purpose (troop housing, equipment storage, etc). The shelter is designed for rapid erection, dismantling and reassembly in the field permitting complete re-use of all materials. Erection time is 28 man-hours. Shelter is intended for use in arctic climates.

7. Logistical Data:

Estimated Cost: $525.00.

8. Remarks:

Type Classification - Standard A, Item 1875 CETC MTG 294, dated 6 June 1958. Military Specification is MIL-B-52017. FSN is 5410-591-8148.

1. Name of Shelter: Building, Prefabricated, Steel, Vertical Wall, 20' x 48'

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Mobility Equipment Research & Development Center, Fort Belvoir, Virginia

5. Physical Characteristics:

Building size is 20' span x 48' length with length variable in 8' increments. Net weight, 10,891 pounds and gross weight, 12,302 pounds for 20' x 48' building. Field expedient foundation is required. Building material is steel and wood. Weather suitability is frigid and temperate. Insulation is 1.5" or 2.0" fiberous glass felt. Gross cube, 339 ft^3 for 20' x 48' building. Crown height, 10 ft.

6. Concept of Use:

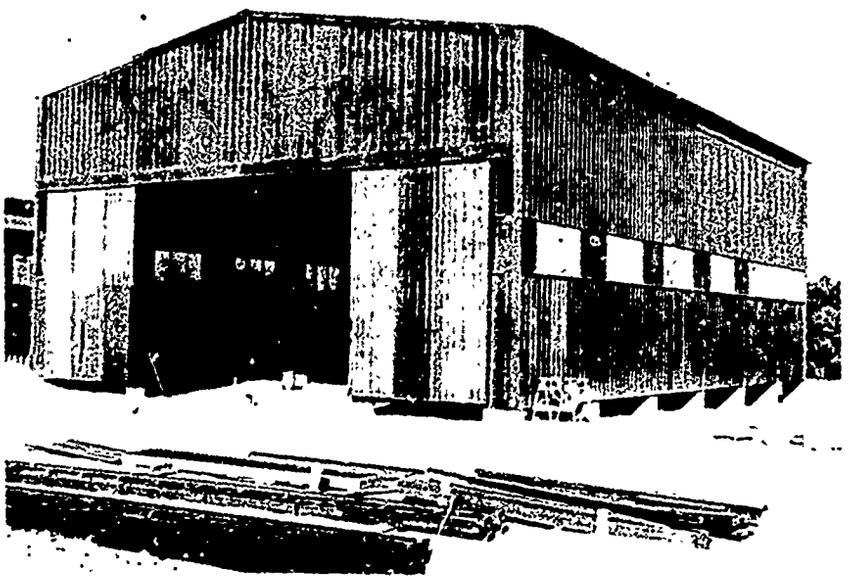
Utilize this building as an all-purpose building in frigid and temperate climates. The prefabricated construction affords rapid assembly and disassembly with simple hand tools and re-use with minimum loss or damage except for fasteners and sealing materials. Erection time, 205 man-hours for 20' x 48' building.

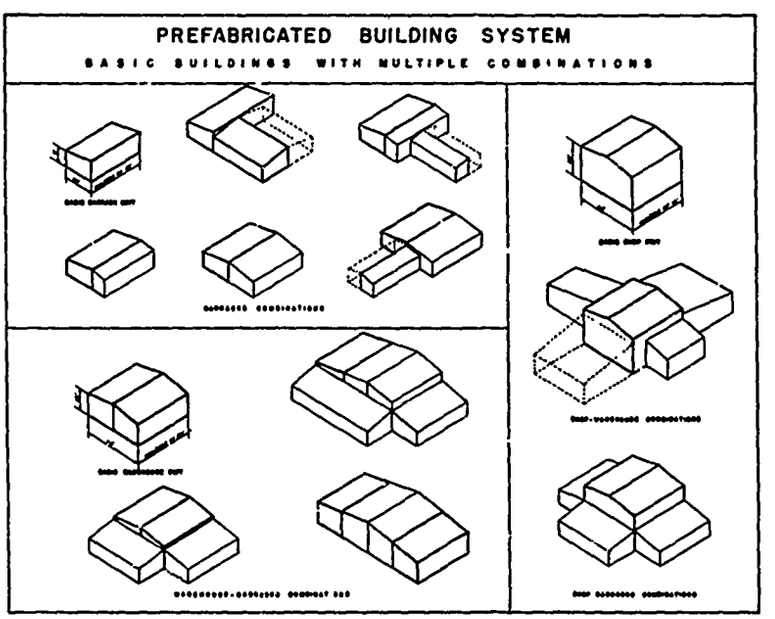
7. Logistical Data:

Estimated Cost: $2,700.00.

8. Remarks:

Type Classification - Standard A, CETC, [illegible], Item 2763, dated 1957. Military Specification is MIL-B-22637. FSN is 5410-025-3930.




PREFABRICATED BUILDING SYSTEM
BASIC BUILDINGS WITH MULTIPLE COMBINATIONS

1. Name of Shelter: Prefabricated Building System, Type III (Shop)

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Mobility Equipment Research & Development Center, Fort Belvoir, Virginia

5. Physical Characteristics:

Building size is 40' span x 100' (10' mod) length. This building weight is 38,700 pounds. Concrete footings are required as a foundation. Building material used is steel and plastic with wood for door jambs and headers.

6. Concept of Use:

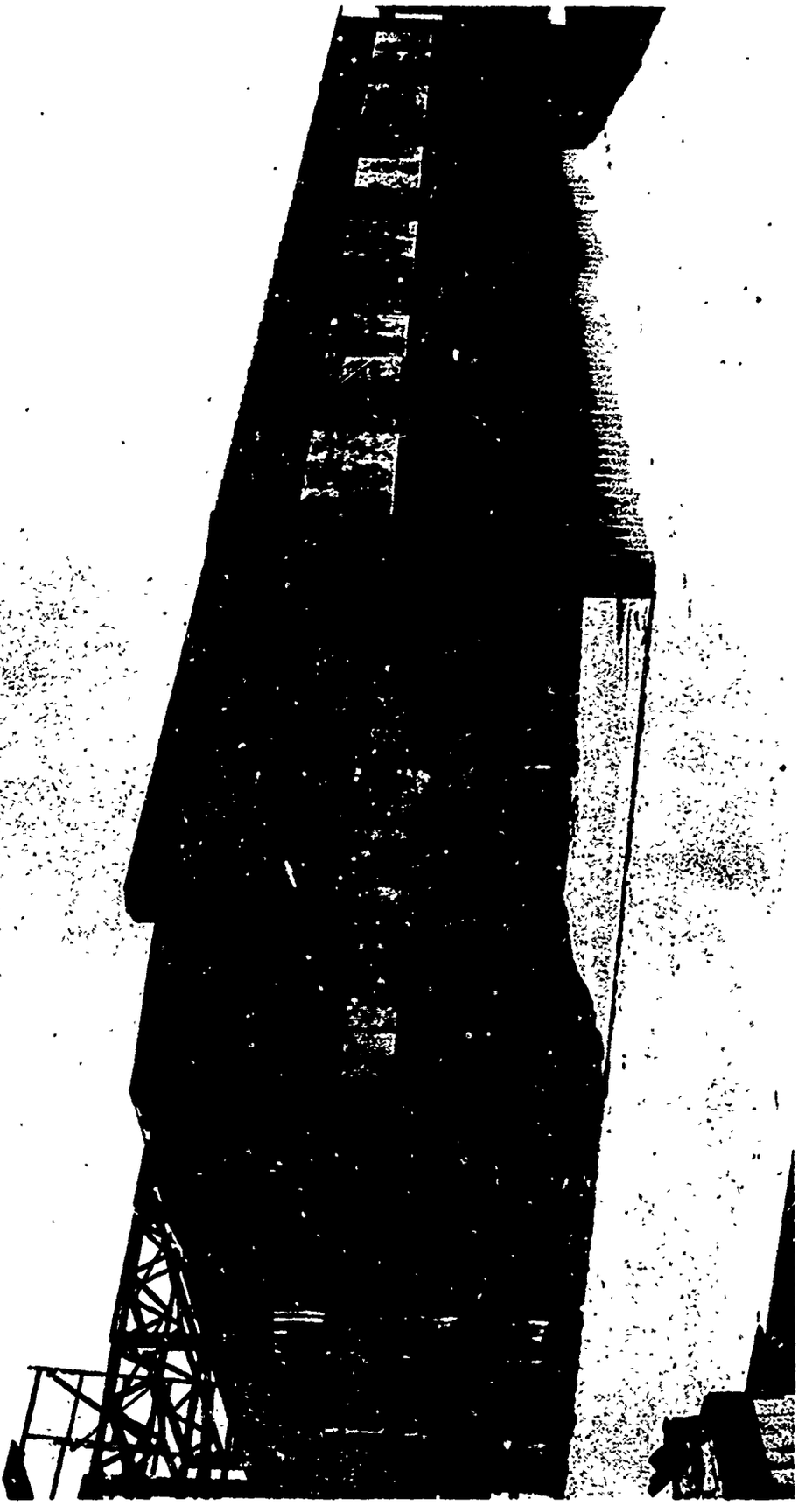
Utilize as a Heavy Shop in temperate climates. This shop building is intended for phase erection, dismantling, and reassembly by unskilled personnel using common tools. Erection time is 800 man-hours for a 40' x 60' building.

7. Logistical Data:

Estimated Cost: $21,000.00.

8. Remarks:

Type Classification - Standard A, Item 2948 CETC Mtg; 299 dated 5 December 1958. Military Specification is MIL-B-52057, FSN is 5410-633-4355.



1. Name of Shelter: Prefabricated Building System, Type II (Warehouse)

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Mobility Equipment Research & Development Center, Fort Belvoir, Virginia

5. Physical Characteristics:

Building size is 40' span x 100' (20' mod) length with widening kit available to construct 80' x 100' building. Weight for 40' x 100' building is 28,700 pounds. Concrete footings are required as a foundation. Building material used is steel and plastic.

6. Concept of Use:

Utilize as warehouse in temperate climates. Warehouse building is intended for phase erection, dismantling, and reassembly in the field by unskilled personnel without benefit of special tools. Erection time is 600 man-hours for 40' x 60' building.

7. Logistical Data:

Estimated Cost: $12,000.00

8. Remarks:

Type Classification - Standard A, Item 2951, CETC MTG 299, dated 5 December 1958. Military Specification is MIL-B-52055. FSN is 5410-633-4358.

1. Name of Shelter: Universal Folded Plate (UFP) Structural System

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Concept Stage

4. Responsible Engineering Activity:

U. S. Army Mobility Equipment Research & Development Center, Fort Belvoir, Virginia

5. Physical Characteristics:

This system is based on a diamond-shaped folded plate concept. UFP panels are interchangeable and reversible. UFP material can be either metal or plastic of a thickness determined by the strength required. Weight of each UFP panel will depend upon the material and thickness.

6. Concept of Use:

Building size varies with configuration desired for intended usage. UFP panels are bolted together to form the desired building. For transportation, the UFP panels nest together to minimize cubage. The UFP panels can be assembled and disassembled numerous times. A prepared foundation is not required where existing soil is capable of carrying the load.

7. Logistical Data:

Not Applicable.

8. Remarks:

Unskilled personnel will be utilized for erection and disassembly of UFP structures.

SPIRAL
GENERATION

1. Name of Shelter: System: Spiral Generation

2. Type of Shelter:

Rigid, Variable Size

3. Current Status:

Concept Stage

4. Responsible Engineering Activity:

U. S. Army Mobility Equipment Research & Development Center, Fort Belvoir, Virginia

5. Physical Characteristics:

The size of shelter will depend upon intended usage. Construction materials will be an appropriate foam (Polyurethene; Phenolic, Epoxy, etc.) and reinforcing. The low volume material would be transported to the construction site and expanded by the Spiral Generation Unit which would produce a foam-in-place dome shaped structure.

6. Concept of Use:

The construction materials would be lightweight, low volume, easily handled and transported, and expanded at the construction site. Shelters constructed would be temporary or semi-permanent. The Spiral Generation Unit would be self-contained and capable of being transported as a standard helicopter load or by standard vehicles.

7. Logistical Data:

Not Applicable.

8. Remarks:

Personnel training will be necessary to attain the required individual skills for operation of the system. Four persons will be required to operate the total system. Individual skills required for this system are: (1) Construction supervisor, (2) equipment operator, (3) unskilled labor.

U.S. Army Electronics Command

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1. Name of Shelter: Shelter, Electrical Equipment S-141 ( )/G

2. Type of Shelter:

Rigid
Non Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Electronics Command, Fort Monmouth, New Jersey

5. Physical Characteristics:

Interior Dimension: 134" L x 76" W x 72-1/2" H
Exterior Dimension: 142" L x 81" W x 82" H
Aluminum skins and structural members bonded to plastic foam core.
Weight: 1,200 pounds

6. Concept of Use:

General purpose communications - electronics enclosure for tactical army use. Transportable by 2-1/2 ton truck and by fixed and rotary winged aircraft.

7. Logistical Data:

Cost: $2,500.00. No depot stock.

8. Remarks:

Technical Data Package: MIL-S-52059B(EL)

1. Name of Shelter: Shelter, Integrated

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Concept Stage

4. Responsible Engineering Activity:

U. S. Army Electronics Command, Fort Monmouth, New Jersey in coordination with Mobility Equipment R&D Center, Fort Belvoir, Va.

5. Physical Characteristics:

84" L x 87" W x 83" H
Weight: 700 pounds

6. Concept of Use:

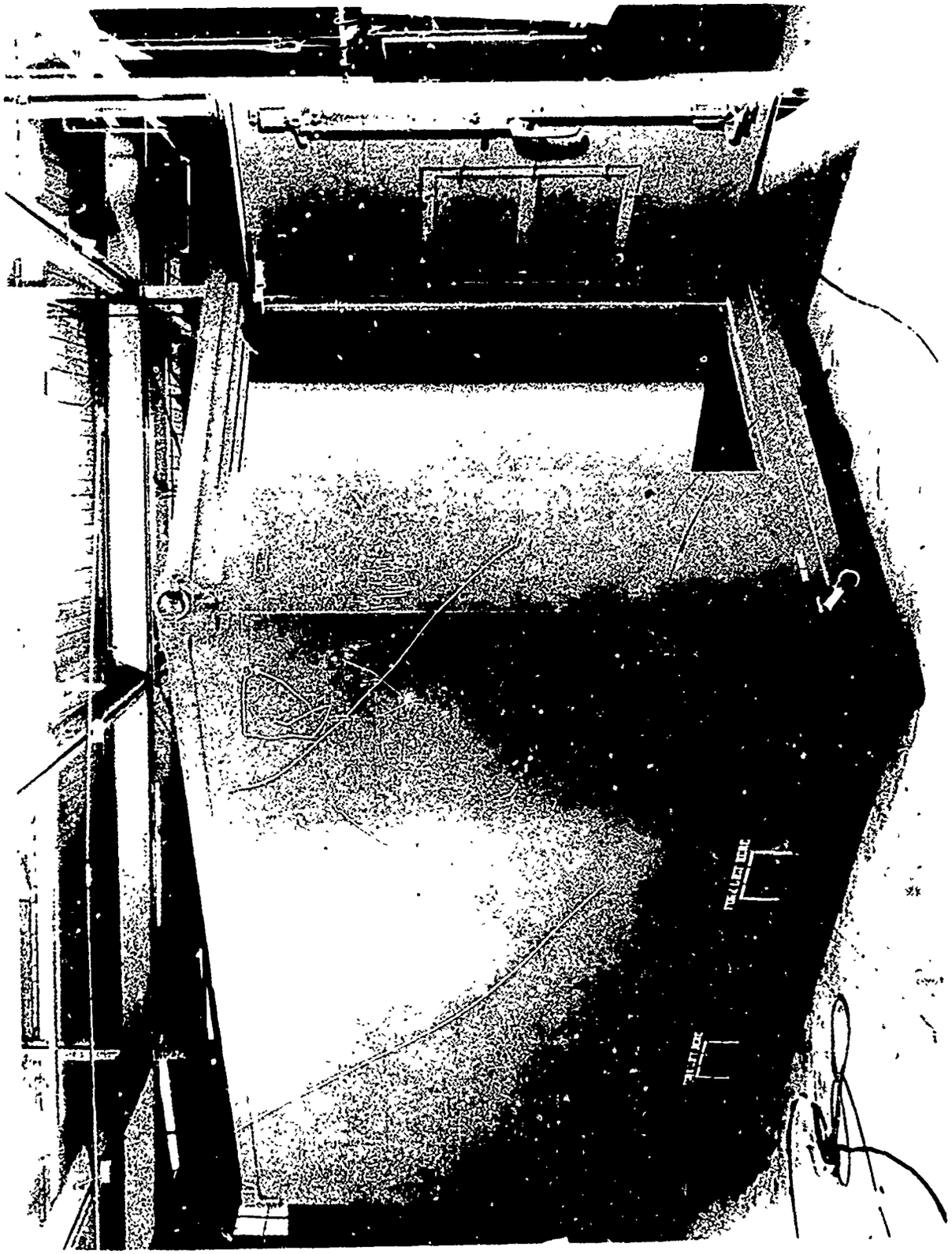
General purpose communications - electronics enclosure for tactical army use. To include integral power source, environmental control unit, and equipment rack structure.

7. Logistical Data:

Project MALLARD has proposed functional model for development to demonstrate feasibility and military habitability.

8. Remarks:

N/A



1. Name of Shelter: Shelter, Electrical Equipment, S-280 ( )/G

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Electronics Command, Fort Monmouth, New Jersey

5. Physical Characteristics:

The shelter consists of an extruded aluminum skeletal structure with styrofoam filled aluminum clad walls, with one 40" wide door. The exterior dimensions of the shelter are 87" wide, 146" long and 83" high. The shelter weighs 1,300 pounds.

6. Concept of Use:

General purpose communication - electronics enclosure for tactical army use. Transportable by 2-1/2 ton truck, dolly set XM720 and fixed and rotary winged aircraft. The shelter provides housing for a complete NLABS developed tactical printing plant which is easily transported by 2-1-2 ton truck or helicopter. The printing plant shelters are used for tactical missions throughout the world and environmental conditions vary from hot to dry, hot and humid, cold and dry or cold and humid conditions.

7. Logistical Data:

Being procured in production. Cost $2,500.00, available on a priority basis. No depot stock.

8. Remarks:

Technical Data Package: MIL-S-55286(EL), including government drawings suitable for competitive procurement.

1. Name of Shelter: Shelter, Electrical Equipment S-144 ( )/G

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Electronics Command, Fort Monmouth, New Jersey

5. Physical Characteristics:

Interior Dimension: 71-1/2" L x 54-1/2" W x 58" H
Exterior Dimension: 76" L x 57" W x 62-1/2" H
Aluminum skins and structural members bonded to plastic foam core.
Weight: 375 pounds

6. Concept of Use:

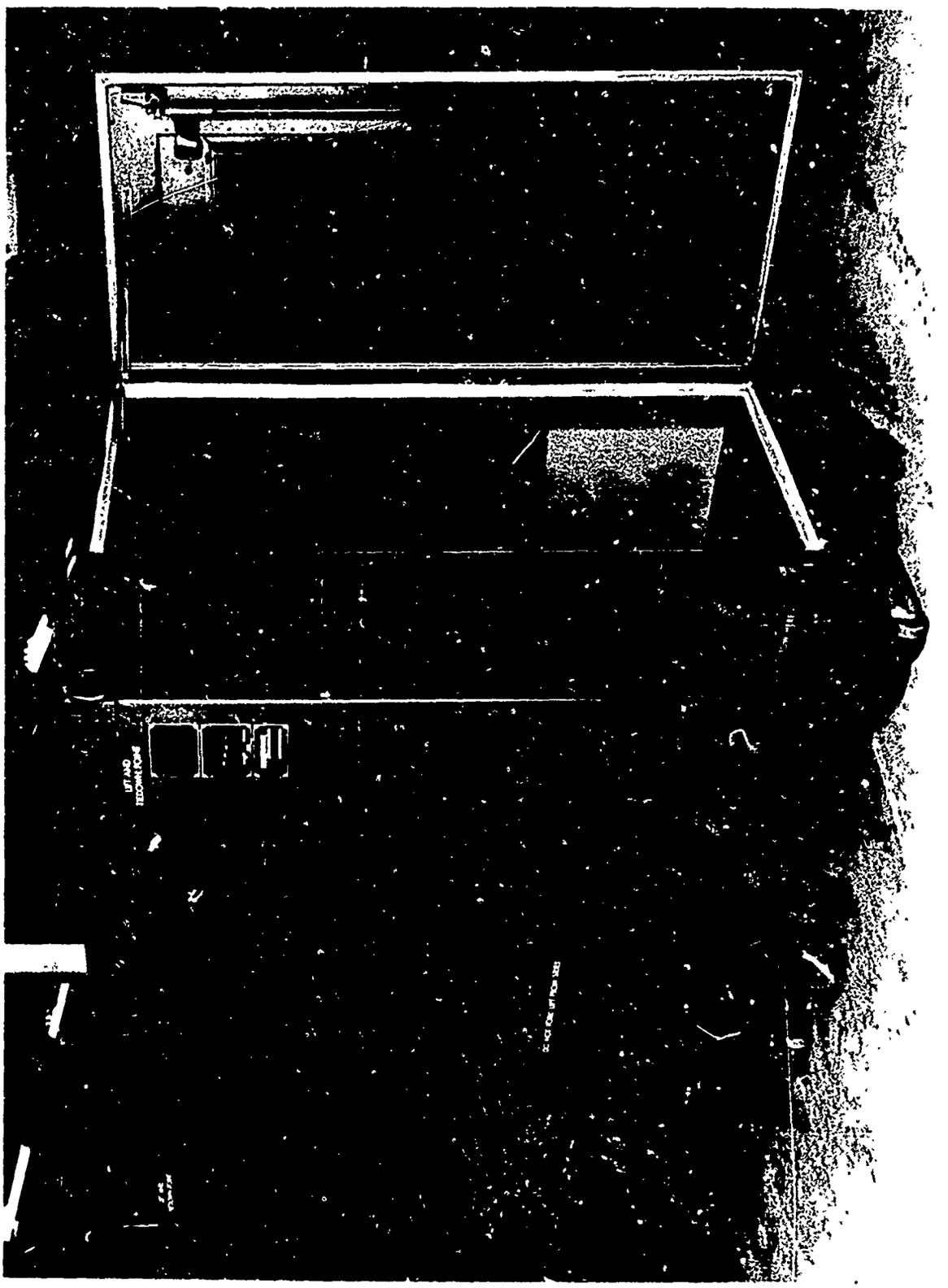
General purpose communications - electronics enclosure for tactical army use. Transportable by 3/4 ton truck and by fixed and rotary winged aircraft. Can be adapted for transport by 1-1/4 ton truck.

7. Logistical Data:

Cost: $1,500.00. No depot stock.

8. Remarks:

Technical Data Package: MIL-S-52060



1. Name of Shelter: Shelter, Electrical Equipment S-318 ( )/U

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Electronics Command, Fort Monmouth, New Jersey

5. Physical Characteristics:

Interior Dimension: 70" L x 69" W x 65" H
Exterior Dimension: 72-1/2" L x 72" W x 70-1/2" H
Aluminum skins and structural members bonded to plastic foam core.
Weight: 450 pounds

6. Concept of Use:

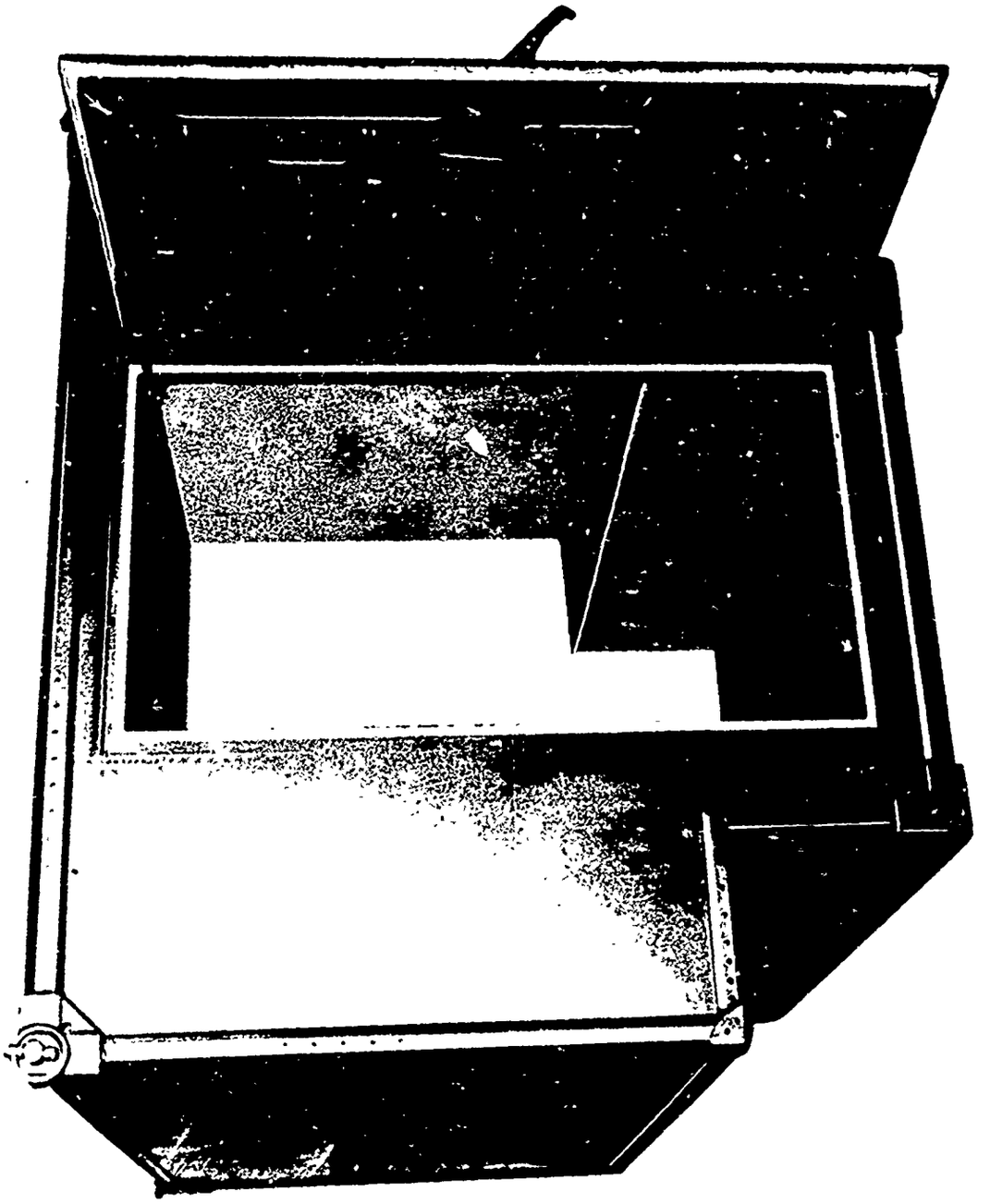
General purpose communications - electronics enclosure for tactical army use. Transportable by 3/4 ton truck and by fixed and rotary winged aircraft. Can be adapted for transport by 1-1/4 ton truck.

7. Logistical Data:

Cost: $1,500.00. No depot stock.

8. Remarks:

Technical Data Package: MIL-S-55429(EL), including government drawings suitable for competitive procurement.



1. Name of Shelter: Shelter, Electrical Equipment S-250 ( )/G

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Electronics Command, Fort Monmouth, New Jersey

5. Physical Characteristics:

Interior Dimension: 78" L x 75" W x 64" H
Exterior Dimension: 85" L x 79" W x 70" H
Aluminum skins and structural members bonded to plastic foam core.
Weight: 745 pounds

6. Concept of Use:

General purpose communications - electronics enclosures for tactical army use. Transportable by 1-1/4 ton trucks XM561, XM715, and XM705; and by fixed and rotary winged aircraft.

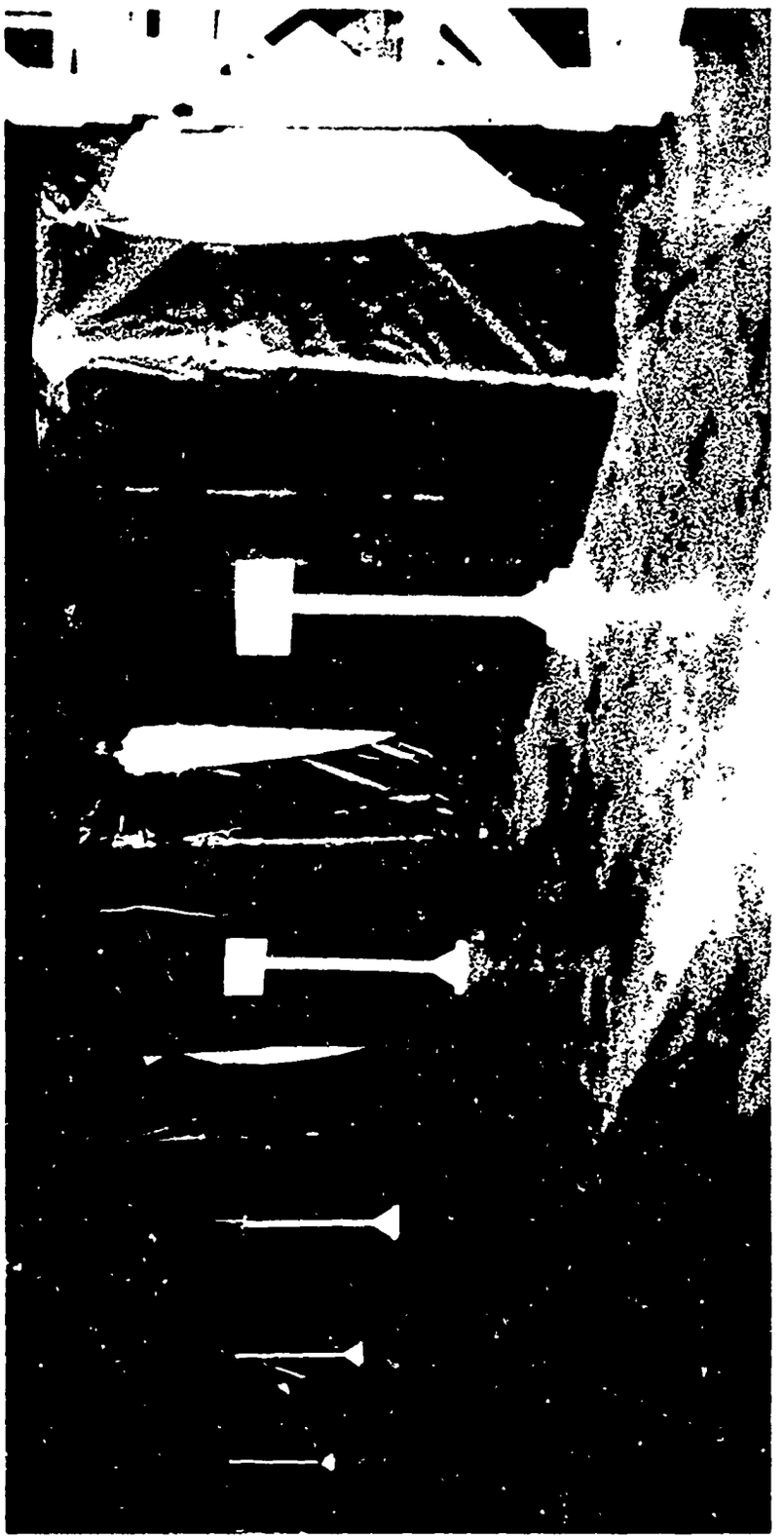
7. Logistical Data:

Being procured in production. Cost: $2,000.00, available on a priority basis. No depot stock.

8. Remarks:

Technical Data Package: MIL-S-55541(EL), including government drawings suitable for competitive procurement.

U.S. Army Aviation Systems Command



1. Name of Shelter: Airmobile Shelter (Couse Shelter)
FSN 4920-849-4102

2. Type of Shelter:

Rigid, Expandable with tentage after expansion

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Aviation Systems Command

5. Physical Characteristics:

Floor space - 40-1/2 sq.ft.; Overall length - 100"; Overall width - 70"; Overall Height - 55"; Expanded height - 87"; Interior Length - 90"; Interior width - 65"; Interior height - 46"; Weight (empty) w/o mobilizer - 1,200 lbs; Weight (w/payload) w/o mobilizer - 4,000 lbs; weight mobilizer - 1,000 lbs. Construction: plywood faced with sheet aluminum. Tentage added for expanded configuration.

6. Concept of Use:

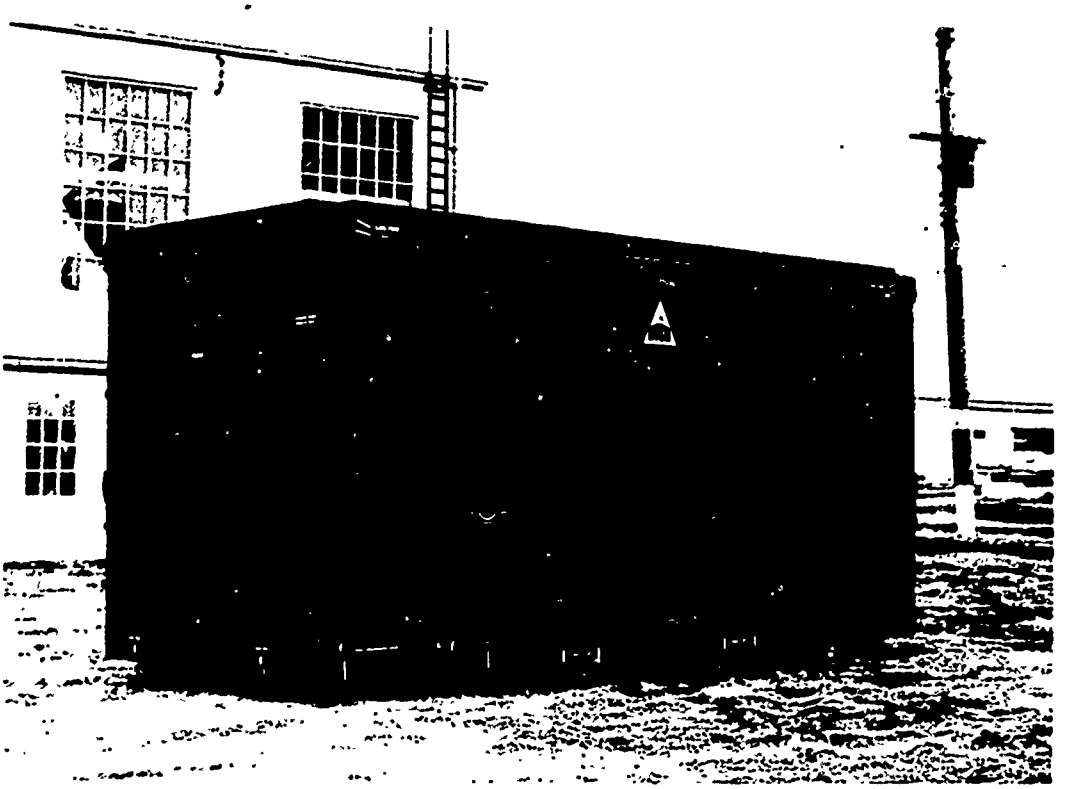
The shelter is used to store standard shop sets and to provide shelter under moderate weather conditions. No air conditioning can be provided. The shelter with tentage is not intended for Arctic use. The shelter can be transported by sling loading and as an internal load for CH47 Helicopter. Removable mobilizers (Type II mobility) are provided for ground mobility.

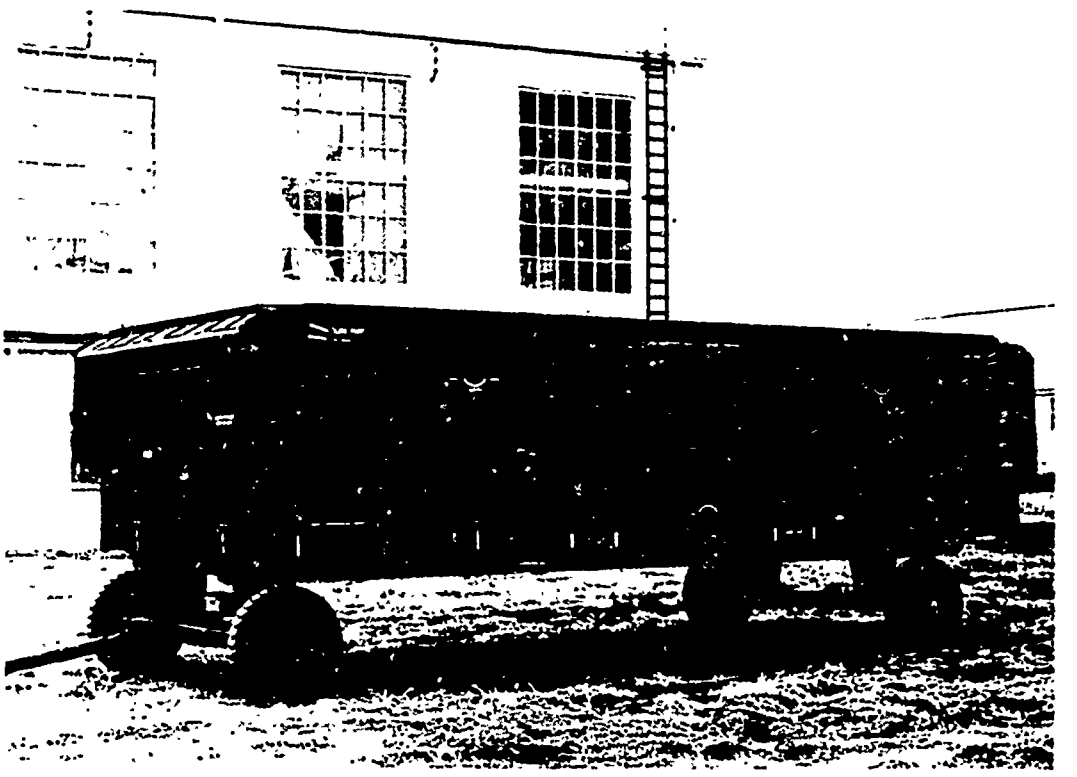
7. Logistical Data:

The shelter and mobilizer have been in production and approximately 236 have been authorized and 408 required. Price for each shelter unit (100 quantity) is $1,217. The mobilizer cost is $2,168.

8. Remarks:

A complete data package is available. Production contract is in process with MRL for approximately 100 shelters.





1. Name of Shelter: Airmobile Aircraft Maintenance Shop

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U. S. Army Aviation Systems Command

5. Physical Characteristics:

Floor area - 100 sq.ft.; weight - 1,780 lbs (includes cabinets and removable mobilizer) - 1,285 lbs (without cabinets and mobilizer); construction - sandwich panel construction (paper honeycomb core bonded to aluminum facings); outside dimensions - Height on mobilizer - 69" (folded), 116" (expanded), Height on skid - 49" (folded), 96" (expanded); Length - 205" (folded), 194" (expanded); Width - 80"

6. Concept of Use:

The shelter is intended for use as an airmobile aircraft maintenance shop and will be employed as a self-sustaining maintenance facility for use at organizational and direct support levels of maintenance. The shelter can be air-lifted into terrain that presently limits the utility of ground mobile aircraft maintenance facilities. It can be air transported to a site (loaded gross weight - 4,000 lbs) as an external sling load or as an internal load by CH47 helicopter. The shelter is equipped with a lightweight detachable mobilizer for moving the shelter on the ground, under limited Type II mobility, from one maintenance site to another or for positioning at a desired site.

7. Logistical Data:

Eight prototype shelters of similar design and construction were built for evaluation. One prototype shelter under evaluation has been in use for more than two years. Six of the remaining prototypes were provided to TECOM for ET/ST and one shelter was not utilized due to damage in shipment. Estimated cost of tooling for production of 200 shelters was $750,000.00 which would be amertized into the basic price of $13,800. per unit.

8. Remarks:

The data package will be updated as a result of analysis studies and design refinements for correction of reported deficiencies. In addition, the contractor is to provide process specifications, adhesive bonding, and installation of rivets. However, the data package will not be approved for procurement until after check tests of new prototype are performed.

U.S. Army Tank-Automotive Command

1. Name of Shelter: Semi-Trailer, Van-Cargo, 12 Ton, 4 Wheel M128A2C

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Interior cargo space: 89-3/4" width x 78-1/2" high x 337-1/4" long; body construction: frame of square tubing; exterior covering is sheet steel, and interior covered with exterior plywood. See Military Standard MX500097 for details.

6. Concept of Use:

Usage: Suitable for use under tactical conditions and intended for transporting general purpose cargo. Prime mover: M52 Truck Tractor.

7. Logistical Data:

Procurement cost: approximately $6,900.00.

8. Remarks:

Current Technical Data Package available.

1. Name of Shelter: M373A2 Semi-Trailer, Van, Electronic, 6 Ton, 2 Wheel

2. Type of Shelter:

Rigid
Non-Expandable
Frame-Type

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Length: 30 feet
Weight: 9,430 pounds
Material: Aluminum body monocoque construction with steel undercarriage frame.

6. Concept of Use:

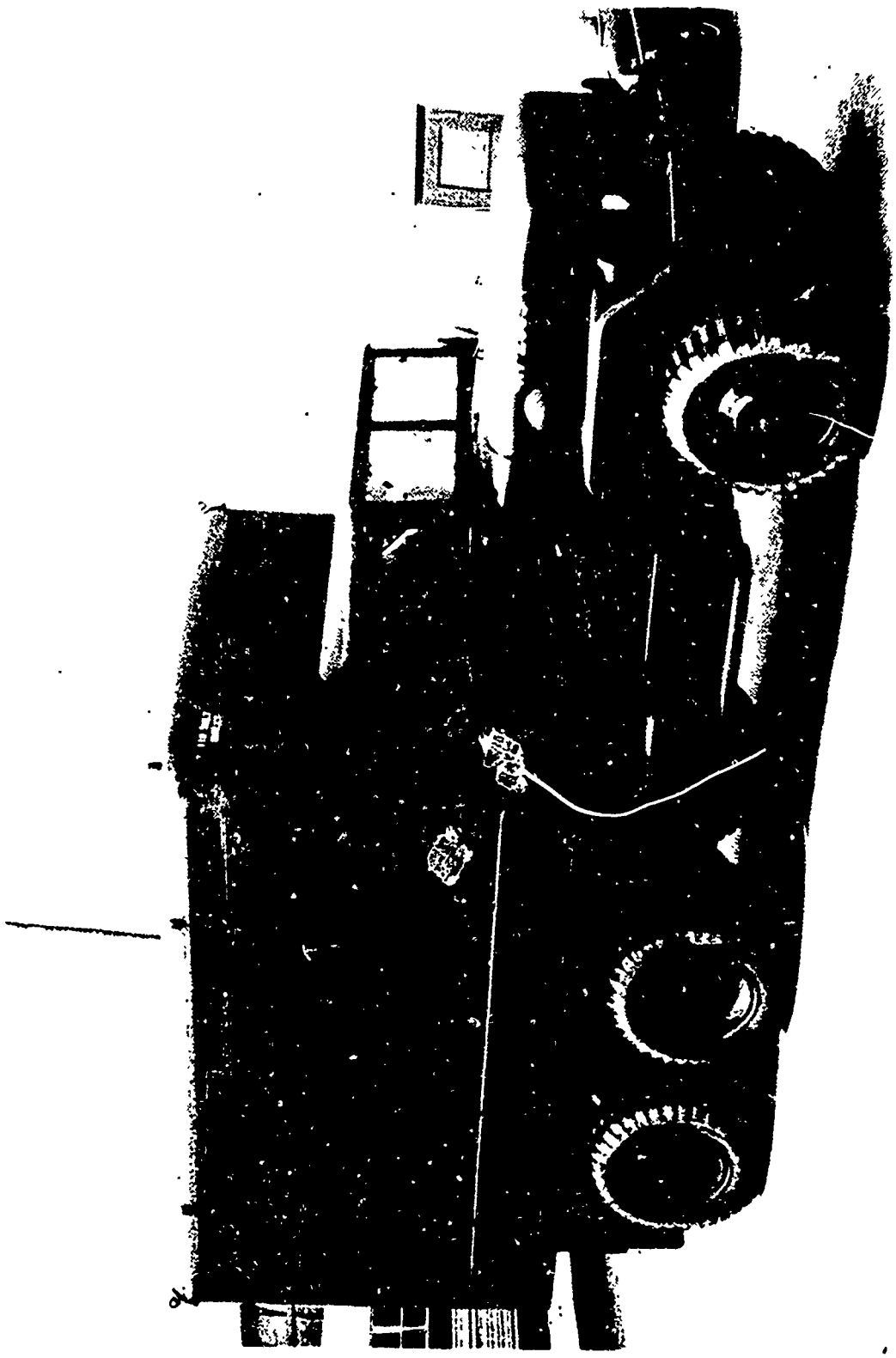
Basic van used by U. S. Army Electronic Command, U. S. Army Missile Command, U. S. Army Computer System Command and other Army Agencies, as a mobile shelter for electronic equipment and other allied purposes. Transported by driveaway, rail or air. Body may be separated from dolly for air shipment.

7. Logistical Data:

Following models were developed for special purposes: M373A2C, M373A2D, M373A5, M373AE6 and M373A2E7. Cost range is approximately $10,000.00 to $16,000.00 per unit. Small quantity of M373A2 vans stocked. Other vans procured as ordered by users.

8. Remarks:

A Technical Data Package is maintained for each model. Sources available for procurement actions processed each year. Technical Manual TM 9-2330-246-14 covers all models in the M373A2 series. Maintenance problems are negligible. U. S. Army Tank Automotive Command, Warren, Michigan is procurement agency. Item is suitable for various electronic system equipment operations with operating personnel. Some vans are equipped with air conditioners and multi-fuel heaters.



1. Name of Shelter: Truck, Repair Shop Van, 2-1/2 Ton, 6 x 6 M185A3

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Van inside is 144 inches long, 90 inches wide and 76-3/4 inches high. M109A3 similar.

6. Concept of Use:

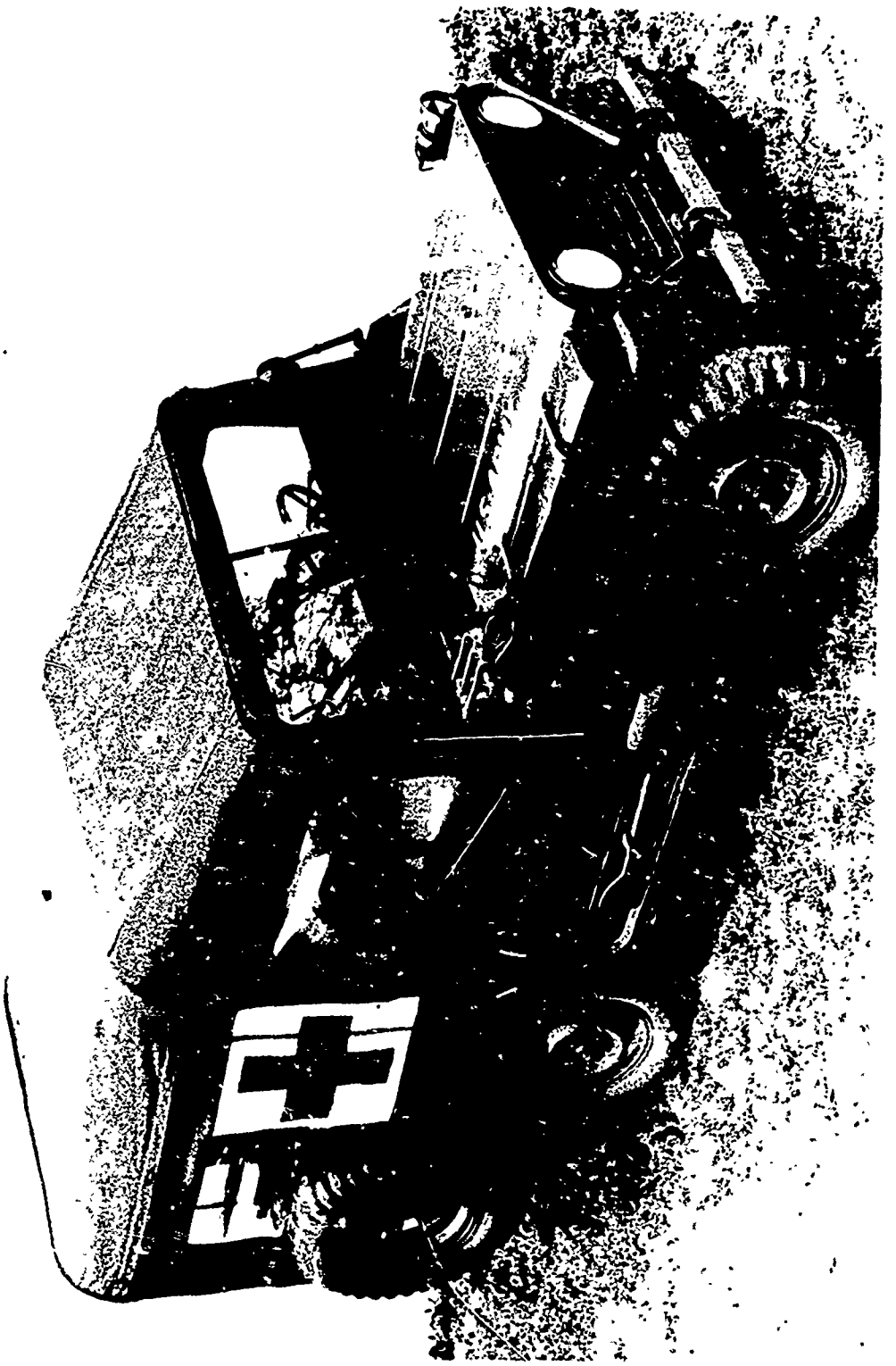
Used for field repair work, office, etc. Several hundred similar M609 and M613 have been sent to MAP recipient countries.

7. Logistical Data:

About 8,000 M185A3's and M109A3's are now in military use. Cost is $11,800.00 and $10,400.00 respectively.

8. Remarks:

A Technical Data Package is available for procurement of the item.



1. Name of Shelter: Truck, Ambulance, Front Line, 1/4 Ton, M718

2. Type of Shelter:

Frame-Type

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

143 inches long, 2,780 pounds less payload and personnel.

6. Concept of Use:

Front line ambulance duty; carries two litter patients and two seated patients or three litter patients.

7. Logistical Data:

Several thousand in system, Standard Type A. Cost of vehicle in present contract is $3,700.00.

8. Remarks:

Technical Data Package released for present contract will be used for future contracts.

1. Name of Shelter: Truck, Ambulance, 1-1/4 Ton, M725

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Payload area is approximately 7 feet wide, 8 feet long and 6 feet high.

6. Concept of Use:

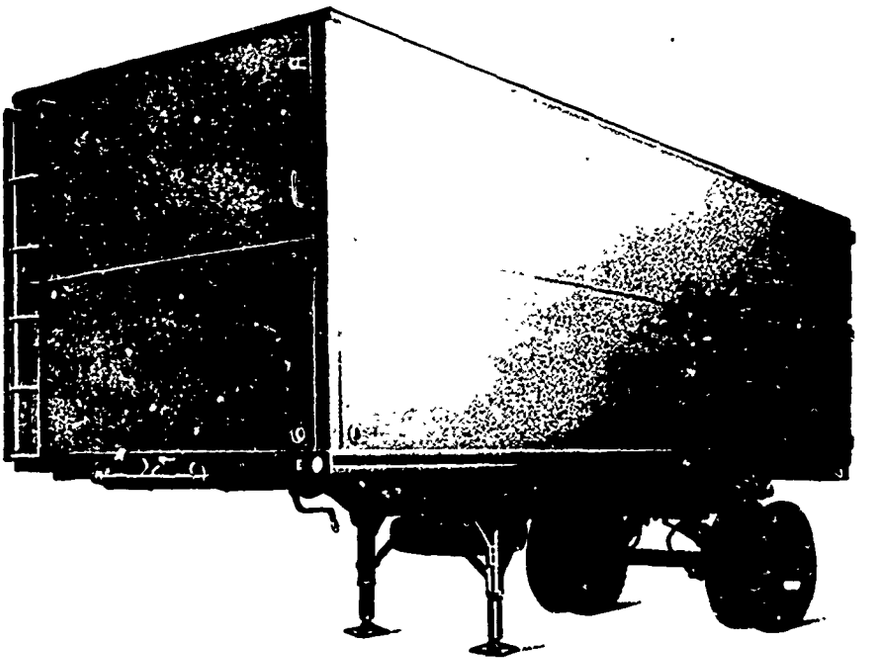
Field ambulance to carry normally four litter (5 max.) patients or eight ambulatory patients. Used by U.S. Army, MAS countries and other U.S. Armed Services.

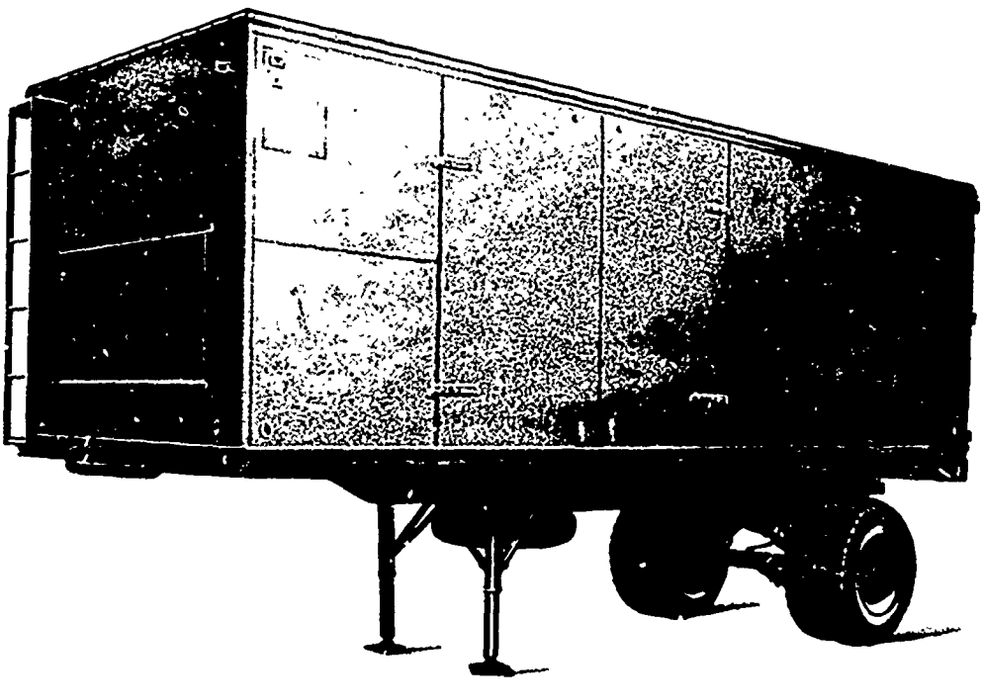
7. Logistical Data:

The truck is supported by the Army Logistic Supply System. The truck is out of production. The M725 cost, less FET, is $4,549.70 based upon the only contract under which it was purchased.

8. Remarks:

Technical Data Package to be released 1 Nov 69. A total of approximately 4,000 M725 were procured under Contract DA-20-113-AMC-10235 with Kaiser Jeep Corporation, Toledo, Ohio.





1. Name of Shelter: Semi-Trailer, Van Shop, 6 Ton, 2 Wheel
M508 and M508C

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Inside space 265 long, 90 inches wide, 74 inches high. The body of this vehicle is basically a modified M119A1.

6. Concept of Use:

Designed to be used as a mechanical or electrical repair shop. It is intended to be towed by a vehicle equipped with a fifth-wheel, and is capable of highway and cross-country operation.

7. Logistical Data:

This vehicle is basically a depot modified M119 semi-trailer. Cost is approximately $8,500.00 per vehicle. About 50 sets of these in system.

8. Remarks:

Technical Data Package is available for procurement of the item.

US ARMY 6808

1. Name of Shelter: Semi-Trailer, Van-Supply; 12 Ton, 4 Wheel, M129A2C

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Interior cargo space: 89-7/8" width x 78-1/2" height x 337" length. Body construction: frame of square tubing; exterior of sheet steel; and interior of plywood.

6. Concept of Use:

Useage: Suitable for use under tactical conditions and intended for transporting general purpose supply items. Prime mover: M52 Truck Tractor.

7. Logistical Data:

Procurement cost: Approximately $7,200.00.

8. Remarks:

Current Technical Data Package available.

1. Name of Shelter: Semi-Trailer, Van-Repair Parts, Storage, 6 Ton 4 Wheel, M750

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Has folding side van body, lower half of which pivots downward to form working area floor, and is provided with an electrical system, ending jacks, guard rails, ladders, and heating. Dimensions same as M447.

6. Concept of Use:

Used for housing and transporting repair parts and other supplies for aircraft maintenance, Marine Corps field P.X. and other applications engineering mobile shelf storage.

7. Logistical Data:

Cost $11,800.00 less two 60,000 BTU heaters estimated at $1,500.00. Winterization kit also available.

8. Remarks:

Technical Data Package complete and available.

ARMY

1. Name of Shelter: Semi-Trailer, Van Shop, Folding Sides, 6 Ton, 4 Wheel, M447

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Work area is 252 inches long, 94-1/2 inches wide, 131 inches high, overall, with floor 52 inches off ground. Both sides fold out for increased working area.

6. Concept of Use:

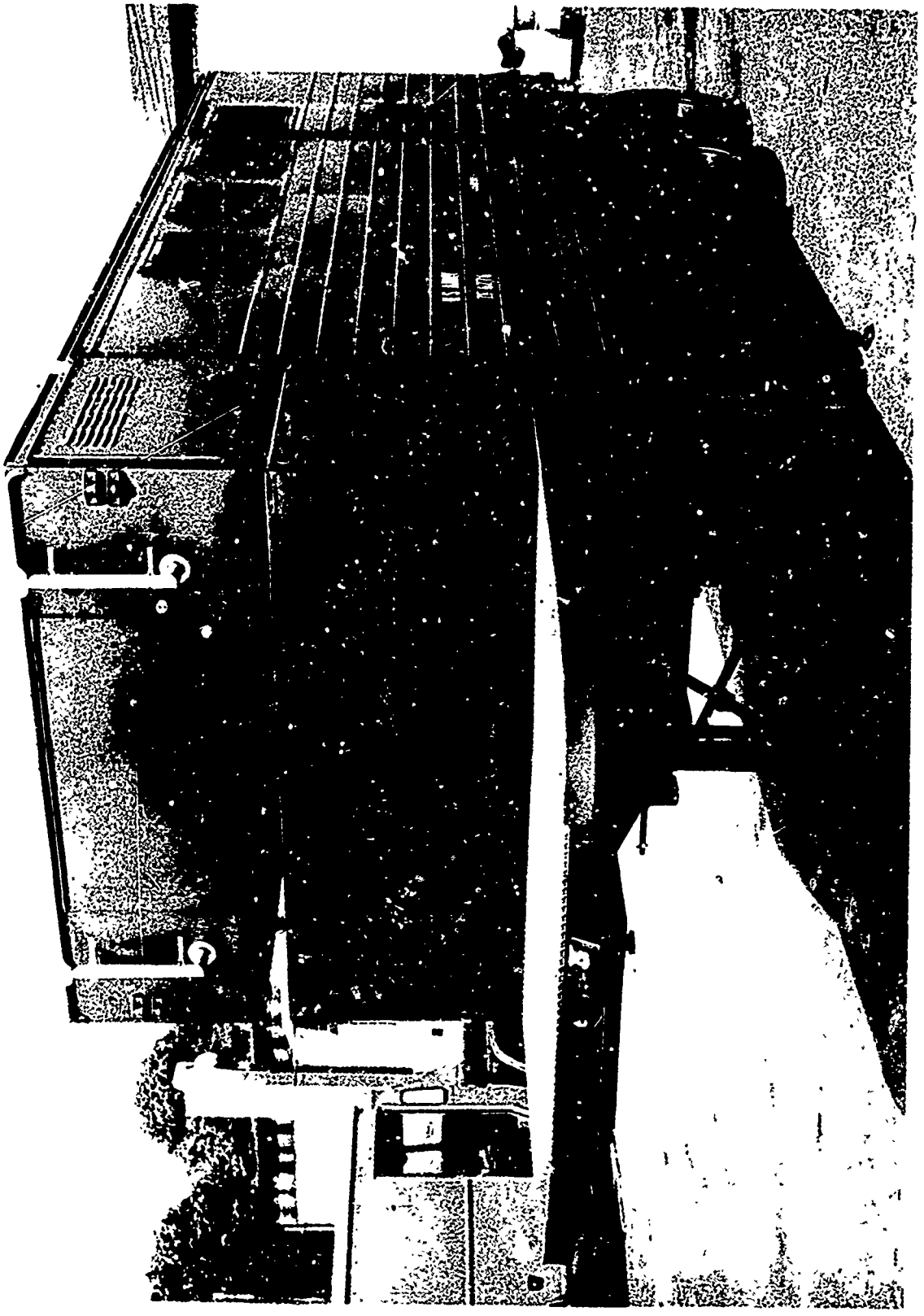
Maintenance shop van similar to M750.

7. Logistical Data:

Cost $9,800 less heating units at $1,500. Air conditioning available on the M447C model.

8. Remarks:

Technical Data Package is available.



1. Name of Shelter: Semi-Trailer, Van, Expandable Side: 6 Ton, 4 Wheel, M313

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Body 17 feet long, 6 feet 3 inches high inside, interior width can be extended from 6 foot 10 inches to 13 foot 6 inches. Weight approximately 14,500 pounds.

6. Concept of Use:

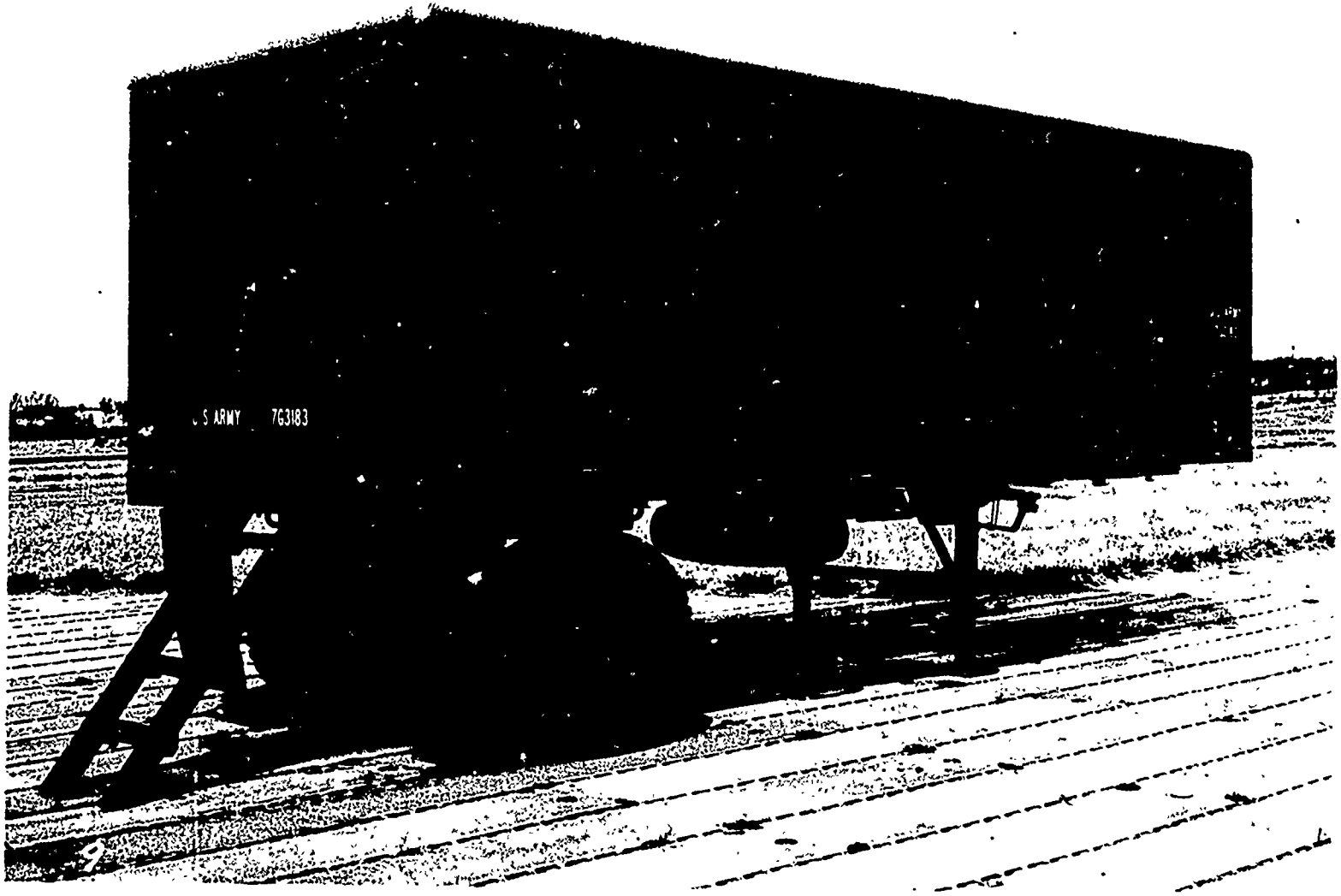
Used for sheltering and transporting maintenance shop equipment, computers, command post and equipment that requires larger working area than eight feet wide.

7. Logistical Data:

Cost $14,200 less ECU estimated at $5,000.00.

8. Remarks:

Technical Data Package complete and available.


S ARMY 7G3183

1. Name of Shelter: Semi-Trailer, Van, Shop, 6 Ton, 2 Wheel M146

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Inside space 264 inches long, 90 inches wide, 76 inches high. Plywood interior.

6. Concept of Use:

This semi-trailer provides quarters for field shop equipment. It is intended for highway and cross-country use with a 2-1/2 ton 6 x 6 M48 Truck Tractor with an over hydraulic brakes and a 24 volt and 110 volt electrical system.

7. Logistical Data:

Last produced by Southwest Body & Truck, St. Louis, Mo. under contract DAAG-07-02-C269 at unit cost without Federal Excise Tax of $4,957.30.

8. Remarks:

Technical Data Package available.

1. Name of Shelter: Semi-Trailer, Van-Cargo, 6 Ton, 2 Wheel, M119A1

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Cargo space 263 inches long, 90 inches wide, 74 inches high. 24 volt body electrical system. Interior lined with fire retardent exterior type plywood. Floor made up of 1-1/8 inch thick boards and steel wear strips.

6. Concept of Use:

This vehicle is basically a cargo carrier designed to be towed by a vehicle equipped with a fifth wheel. It is suitable for general purpose hauling on highway and cross-country operations.

7. Logistical Data:

None available

8. Remarks:

Technical Data Package available.

1. Name of Shelter: M291A2 Truck, Van, Expandable, 5 Ton, 6 x 6

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Length (Interior): 204"
Width (Interior, expanded): 160"
Height (Interior): 75"
Weight (curb): 26,100 pounds
Material: Steel panels

6. Concept of Use:

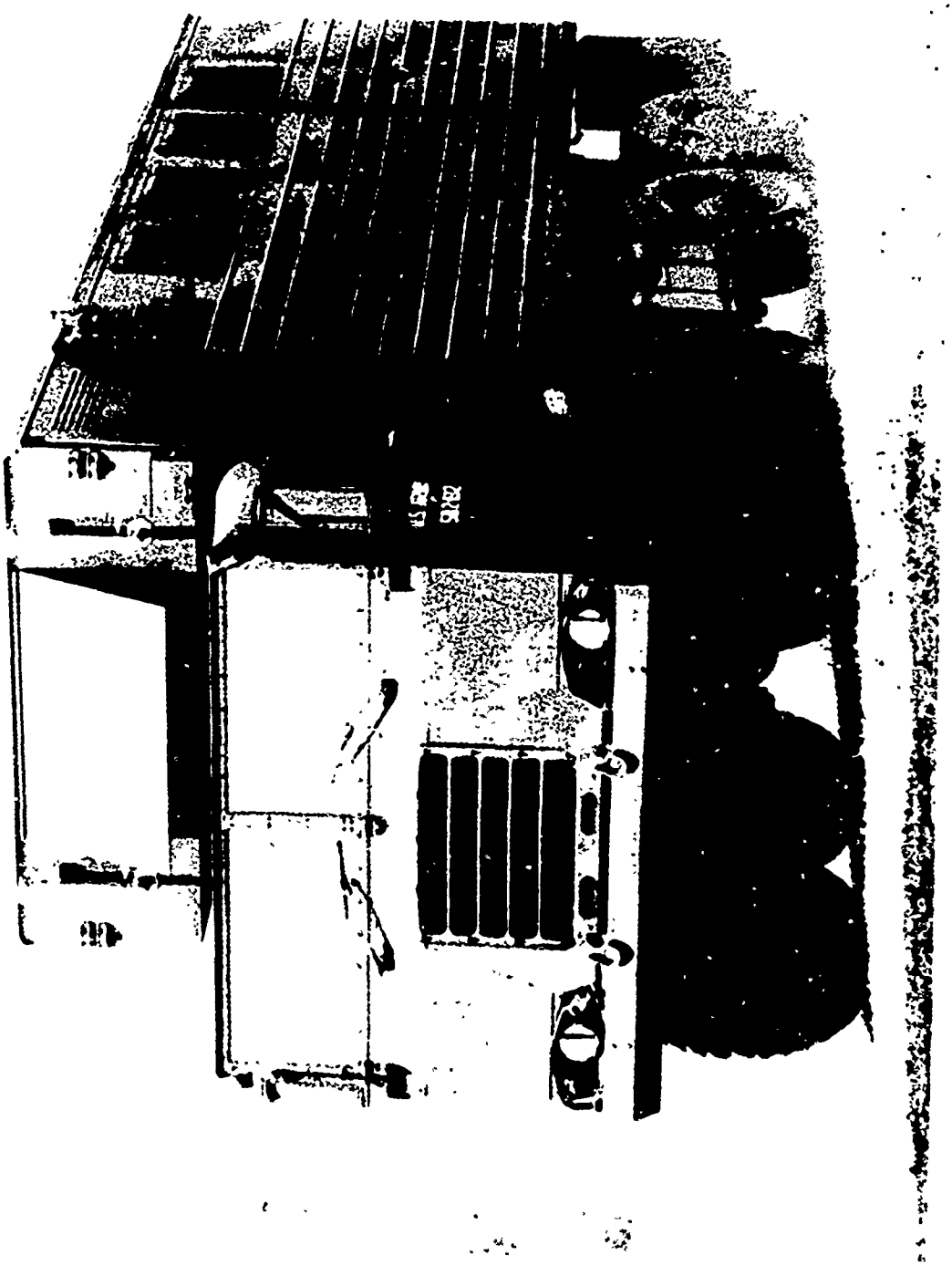
Used by ECOM as an instrument calibration shelter. Used by MICOM as an instrument meteorology shelter. Used by TIIF as a photo reproduction shelter.

7. Logistical Data:

There are 142 expansible vans in the system. The vehicles varied in cost from $22,517 to $24,303. Procurement of 385 vehicles are scheduled over the next 3 years.

8. Remarks:

Technical Data Package is on hand. The procurement has been under way for two (2) years. Training troops to expand the van has been accomplished by Technical Manuals. A maintenance problem has been encountered in the expansion joint seals leaking under wind-driven rains. The users given in Item 6 have been furnished vans procured from Kaiser Jeep Corp.



1. Name of Shelter: XM791, 5 Ton, 8 x 8 Van, Expansible

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Van same as on M291A2. Interior length 204 inches, interior height 75 inches, interior width is 82 inches closed and 160 inches fully extended. Curb weight is 24,500 pounds.

6. Concept of Use:

Present use is for Pershing Pla Battery Control Central Van is heated by two 60,000 BTU heaters and air conditioned by a 36,000 BTU/hr 220 V, AC, three phase power unit.

7. Logistical Data:

19 vehicles built, Limited Production approximately $68,000.00 (low volume).

8. Remarks:

Technical Data Package available for Pershing configuration. Includes air conditioner and heaters.

U S ARMY
03HW4168

1. Name of Shelter: Van, Shop, Folding Side, 1-1/2 Ton, M448

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Length: 165-1/2 inches
Width: 91 inches
Height: 101-5/8 inches
Weight: 2,960 pounds (curb)

General: Composed of an aluminum body, mounted on and is removable from chassis, trailer, MS53029-1. A landing gear composed of a caster type landing wheel to support drawbar and permit movement of trailer when uncoupled.

6. Concept of Use:

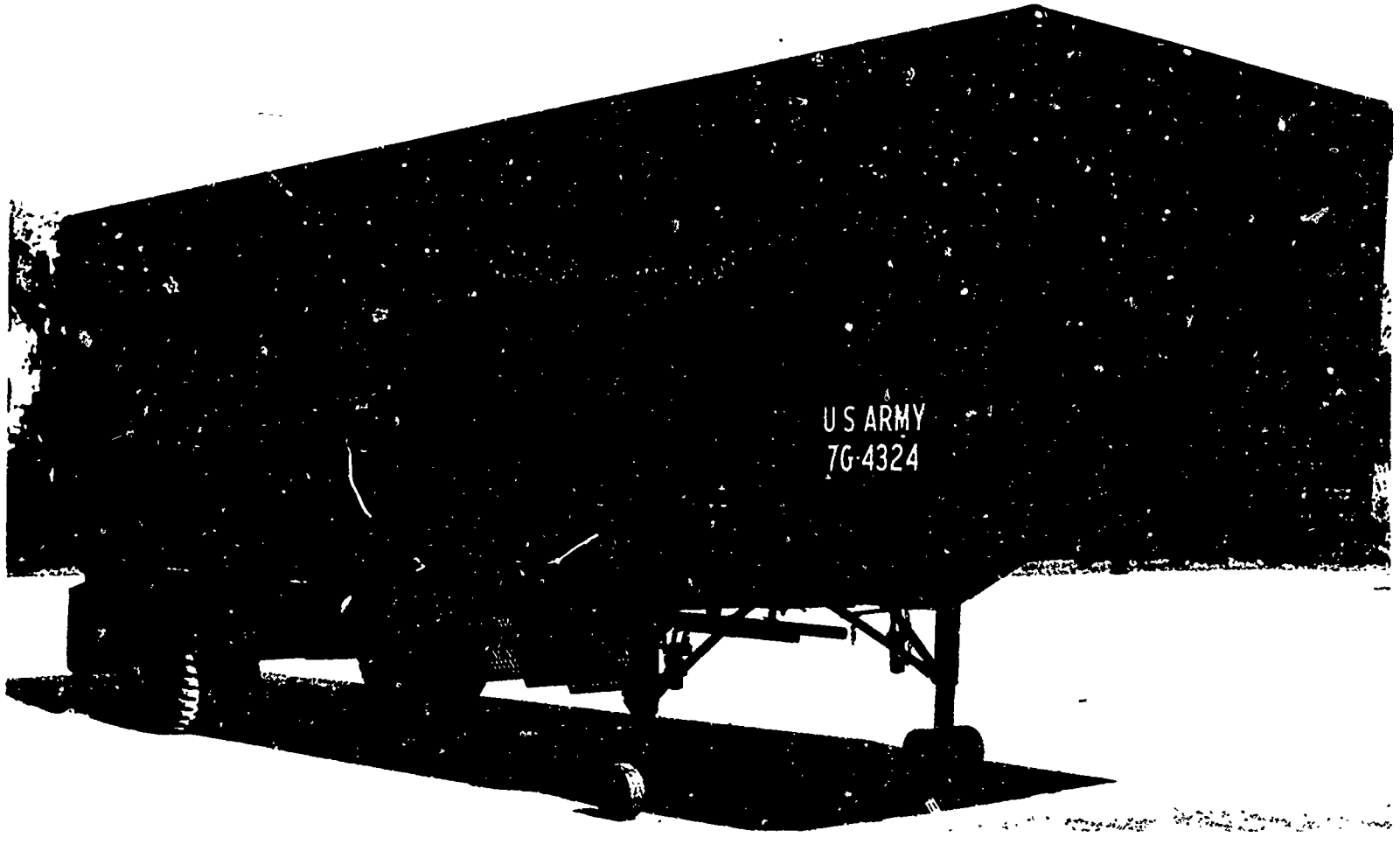
The M448 is a component of various aircraft maintenance shops. For use on highway or cross-country. The trailer is designed to provide a mobile trailer van shop with folding sides.

7. Logistical Data:

Unit cost in production: Approximately $3,300.00.

8. Remarks:

Current Technical Data Package available.


U S ARMY
7G-4324

1. Name of Shelter: M348A2 Semi-Trailer, Van, Electronic, 6 Ton, 2 Wheel

2. Type of Shelter:

Rigid
Non-Expandable
Frame-Type

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Length: 30 feet
Weight: 8,770 pounds
Material: Aluminum body, monocoque construction with steel undercarriage frame.

6. Concept of Use:

Basic van, used by U. S. Army Electronic Command, U. S. Army Missile Command and other Army Agencies as a mobile shelter for electronic equipment and other allied purposes. Transported by driveaway, rail or air. Body may be separated from dolly for air shipment.

7. Logistical Data:

Following models were developed for specific purposes: M348A2C, M348A2D, M348A2F, M348A2G, M348A2H, M348A2K and M348A2N. Cost range is approximately $9,000.00 to $14,000.00 per unit. Small quantity of M348A2 vans stocked. Other vans procured as ordered by users.

8. Remarks:

A Technical Data Package is maintained for each model. Sources available for procurement actions processed each year. Technical Manual TM 9-2330-246-14 covers all models in the M348A2 series. Maintenance problems are negligible. U. S. Army Tank Automotive Command, Warren, Mich. is procurement agency. Item is suitable for various electronic system equipment operations with operating personnel. Some vans are equipped with air conditioners and multi-fuel heaters.

U S ARMY
7H0686

1. Name of Shelter: Semi-Trailer Van, Electronic, 10 Ton, 4 Wheel XM574E1

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

The XM574E1 is the basic configuration from which the XM654, XM680, XM703 and the XM738 in the 10 ton category have been developed. Width is 96", length may range from 31 to 39 feet and height as required with regulations.

6. Concept of Use:

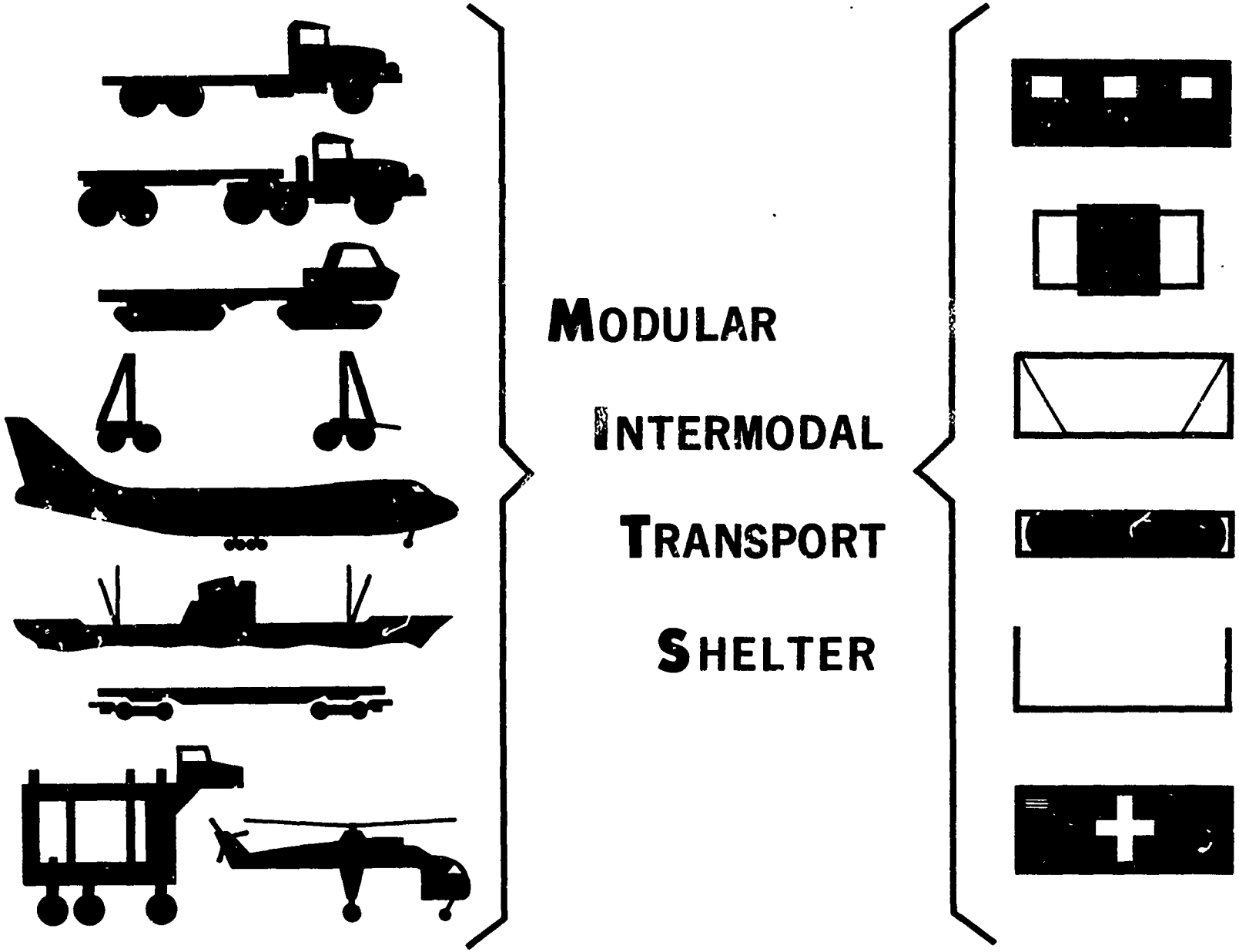
Uses so far have been chiefly electronic, such as telemetry, telephone and switchboard. The latest has been a completely equipped petroleum laboratory.

7. Logistical Data:

Approximately 50-60 are presently in use by various services. Cost is approximately $13,700 in the XM574E1 configuration.

8. Remarks:

Technical Data Package consisting of contractor and military drawings is being converted into full scale military type package. No special problems.


MODULAR
INTERMODAL
TRANSPORT
SHELTER

1. Name of Shelter: Modular Intermodal Transport Shelter

2. Type of Shelter:

Rigid,
Non-Expandable
Rigid,
Expandable

3. Current Status:

Concept Stage

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Standardized shelter sizes with standard attach points (lifting, tiedown and coupling corners) compatible with multi-modal transport systems.

6. Concept of Use:

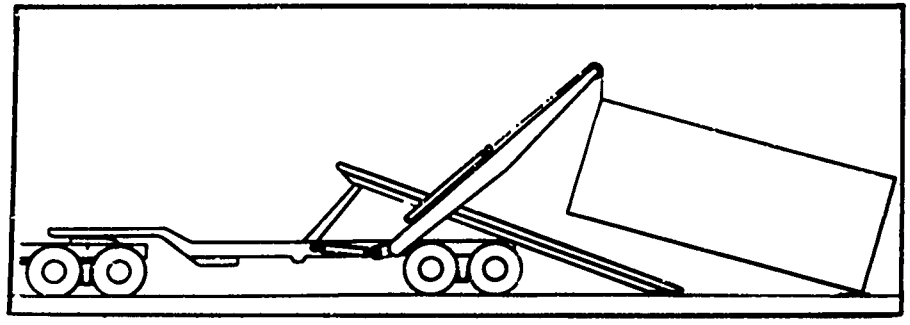
Standardized shelter sizes will allow standardized vehicles to transport the shelter with the required mobility. Thus, any shelter could be moved by an air cushion vehicle, tracked carrier or wheeled vehicle as required, in addition to ship, rail or air. Interface with field shelters is necessary to standardize shelter sizes and handling methods for compatibility with vehicles and handling system.

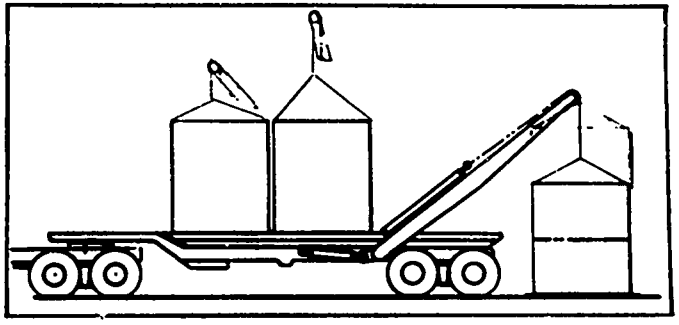
7. Logistical Data:

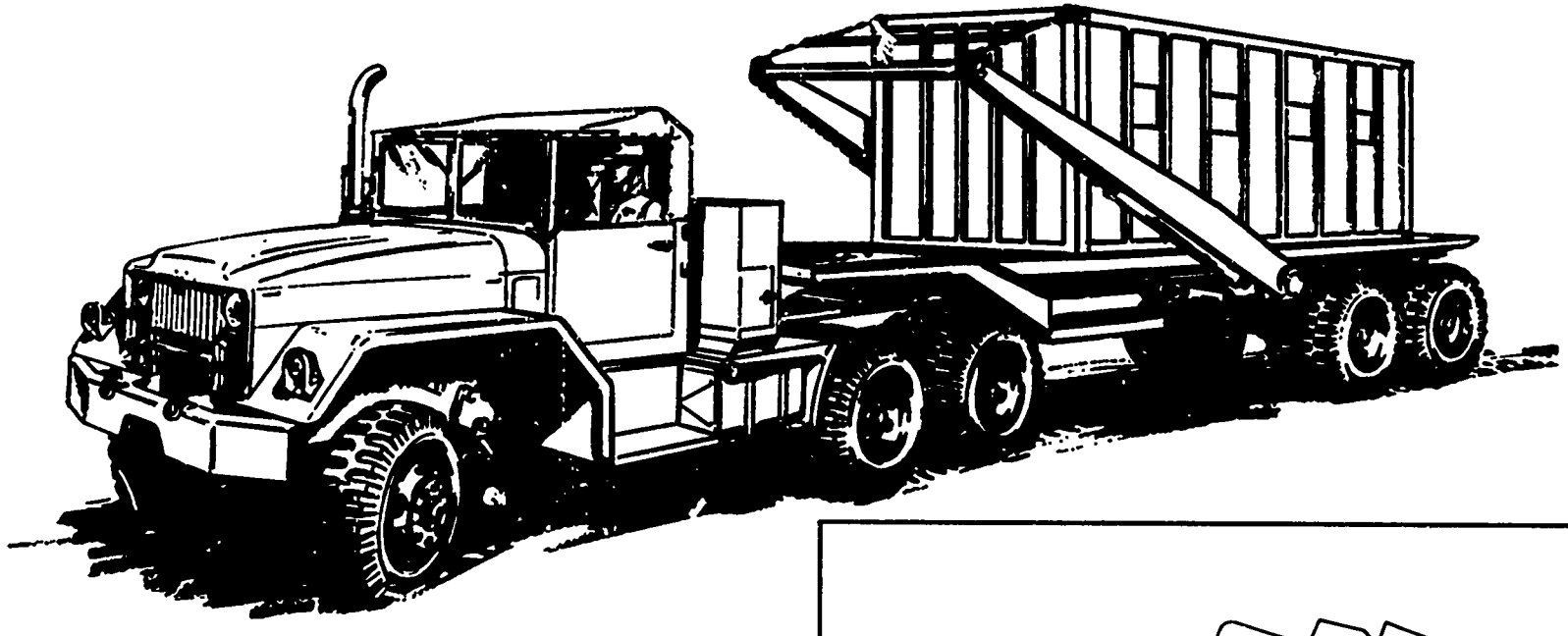
By separating the shelter from the carriers, all of which are to be compatible, the reaction time may be quicker and there may be an eventual dollar savings.

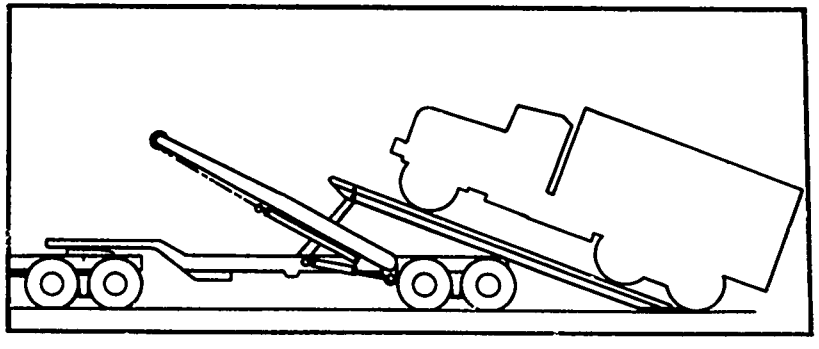
8. Remarks:

Studies and limited feasibility tests will determine the desirability of a compatible vehicle - shelter/logistics integrated transport system. To facilitate the mobility requirements of the mobile units of the Functional Field Shelter System, the standardization of shelter sizes, corner fittings and mechanical handling compatibility is necessary. Shelter standardization will permit utilization of a family of vehicles having a wide spectrum of mobility ranging from retractable mobilizer wheels to surface effect vehicles. For instance, the MIL-VAN and the TRI-CON container units should be very seriously considered for mobile shelter use. Thus, a self-loading/unloading container - shelter transporter is a necessity in future functional shelter movement and usage, with standardization considerably reducing the logistical problems.









SELF LOADING-UNLOADING CONTAINER TRANSPORTER TEST RIG

Tractor and Semitrailer in Travel Mode

1. Name of Shelter: Line Haul - Self Load/Unload Shelter and Container Transport Vehicle

2. Type of Shelter:

Rigid,
Non-Expandable
Rigid,
Expandable

3. Current Status:

Concept Stage - A program has been initiated as a related response to the QMDO #11418 for Functional Field Shelter System integrated with the Self-loader/Unloader Container Line Haul Transport Vehicle

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

The concepted container - shelter transporter will be capable of lifting up to 22 Ton ISO standard 8 x 8 ft. containerized shelters in combinations of lengths up to 20 ft. The vehicle is 106" wide, 32.7 ft. in length, and weighs approximately 8 tons.

6. Concept of Use:

The vehicle is envisioned as a line - haul transporter capable of self-loading/unloading multi-sized cargo including shelters, containers, cover boxes, and skid-mounted items, off-road as well as line haul. All loading tasks are accomplished without assistance, using only onboard equipment.

7. Logistical Data:

The new shelter transporter vehicle can perform the mission of current line haul vehicles: The M-127, 12 Ton Stake and Platform Trailer, and other platform and enclosed semitrailers substituting as shelters. Each of these semitrailers require their own set of suspension & integral frames, whereas the concepted standardized transport vehicle can move any shelter unit which utilizes standard corner fittings & ISO container sizes to facilitate the mobility requirements of the mobile units of the Functional Field Shelter System.

8. Remarks:

Studies are currently under way to define: 1. Mobility; 2. Prime mover power requirements; 3. Optimum Payload/GCW; 4. Unitized Shelters; 5. Self-loading/Unloading capabilities. Concurrent with these studies has been the design and fabrication of an endloader concept test rig which is due to be delivered to USATACOM in January 1971.

US ARMY
TF 9410

1. Name of Shelter: Semi-Trailer, Van, 10 Ton, 4 Wheel, XM654

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Length 31-39 feet, width 96 inches, height as required. Structure is monocoque aluminum with or without ports for air conditioner(s). Insulation as required. Shock and vibration attenuation, doors, partitions, electrical installations can be provided as required.

6. Concept of Use:

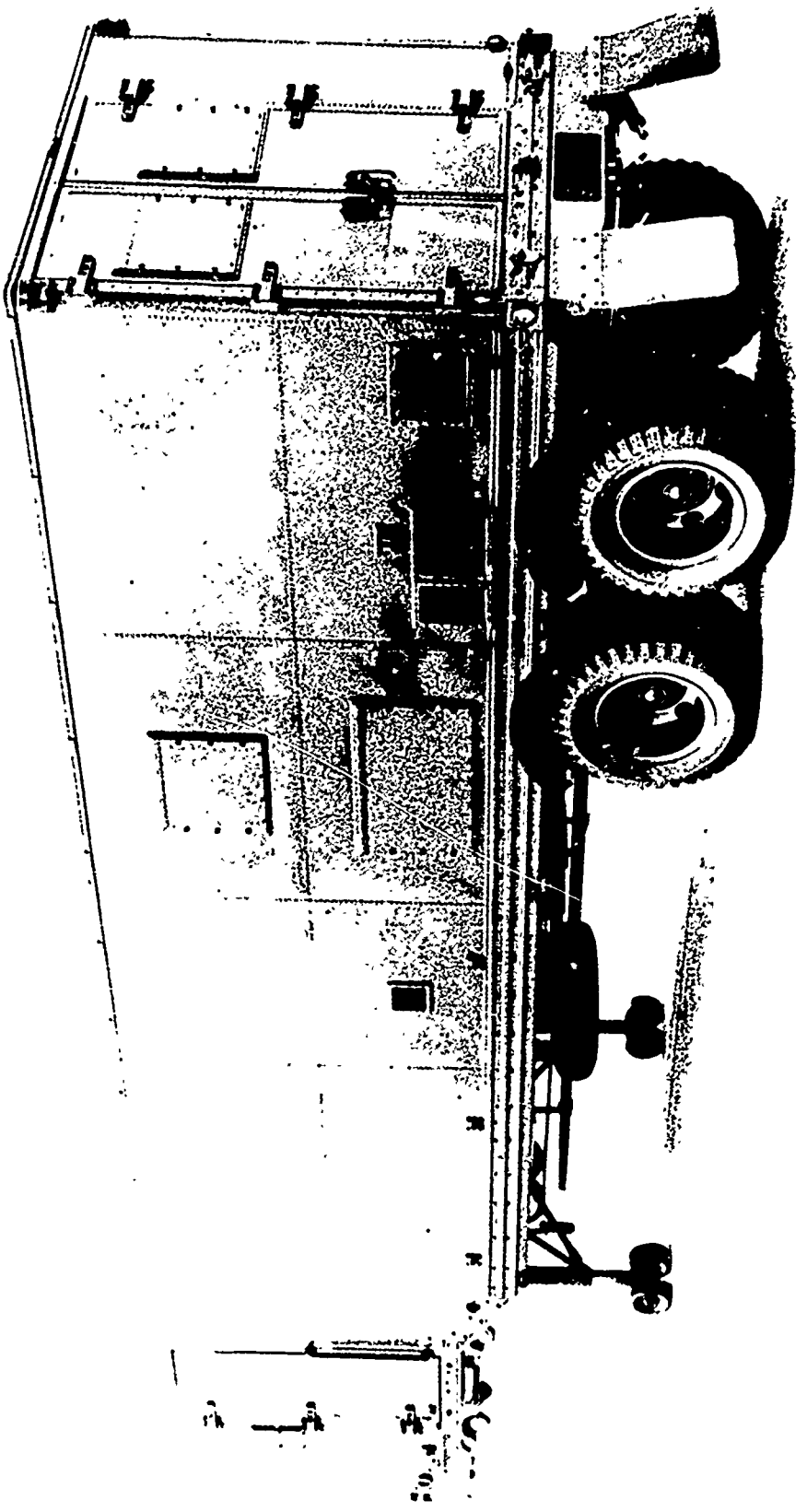
Used for carrying electronic and other sensitive equipment requiring softness of ride, insulation, safety, maintenance, etc.

7. Logistical Data:

None available.

8. Remarks:

Technical Data Package complete and available.



1. Name of Shelter: Semi-Trailer, Van, 10 Ton, 4 Wheel, XM680

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Develcpment Stage

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command

5. Physical Characteristics:

Length 31-39 feet, width 96 inches, height as required. Structure is monocoque aluminum with or without ports for air conditioner(s). Insulation as required. Shock and vibration attenuation, doors, partitions, electrical installations can be provided as required.

6. Concept of Use:

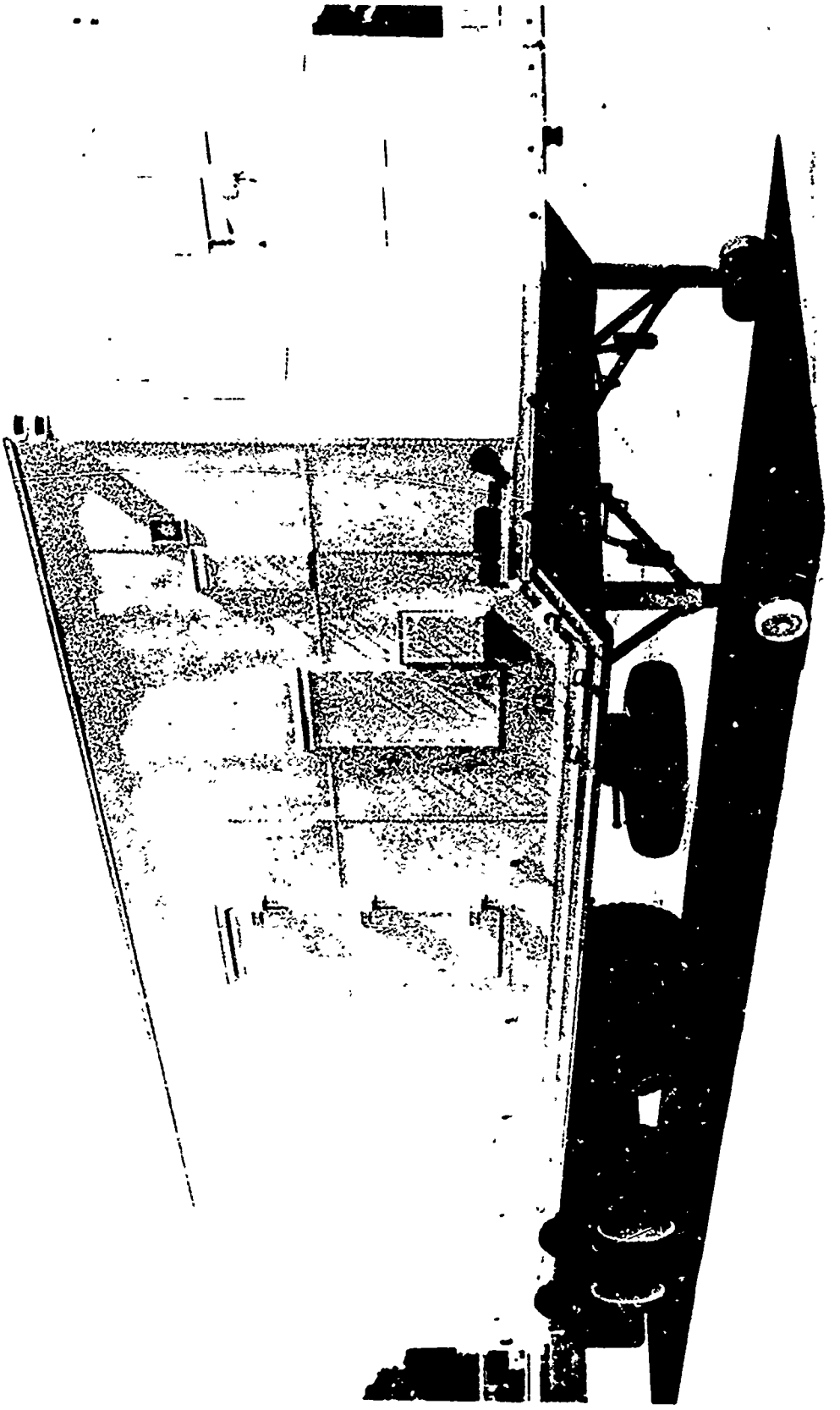
Used for carrying electronic and other sensitive equipment requiring softness of ride, insulation, safety, maintenance, etc.

7. Logistical Data:

None available.

8. Remarks:

Technical Data Package complete and available.



1. Name of Shelter: Semi-Trailer, Van, 10 Ton, 4 Wheel, XM703

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

U. S. Army Tank Automotive Command.

5. Physical Characteristics:

Length 31-39 feet, width 96 inches, height as required. Structure is monocoque aluminum with or without ports for air conditioner(s). Insulation as required. Shock and vibration attenuation, doors, partitions, electrical installations can be provided as required.

6. Concept of Use:

Used for carrying electronic and other sensitive equipment requiring softness of ride, insulation, safety, maintenance, etc.

7. Logistical Data:

None available.

8. Remarks:

Technical Data Package complete and available.

U.S. Army Cold Regions Research & Engineering Laboratories

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1. Name of Shelter: Rigid Arch Type Shelter (Sable)

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

USA Cold Regions Research and Engineering Laboratory

5. Physical Characteristics:

16 ft wide, 8' high and any length. In multiples of 4 feet. Constructed from Raypan, a composite material having a matrix of glass cloth woven with ties of the same cloth. Raypan materials used in the arches. This material is impregnated with resin. It is light, strong, rigid and tough. Simmons #2 Roto-Lock used for connections between structural components.

6. Concept of Use:

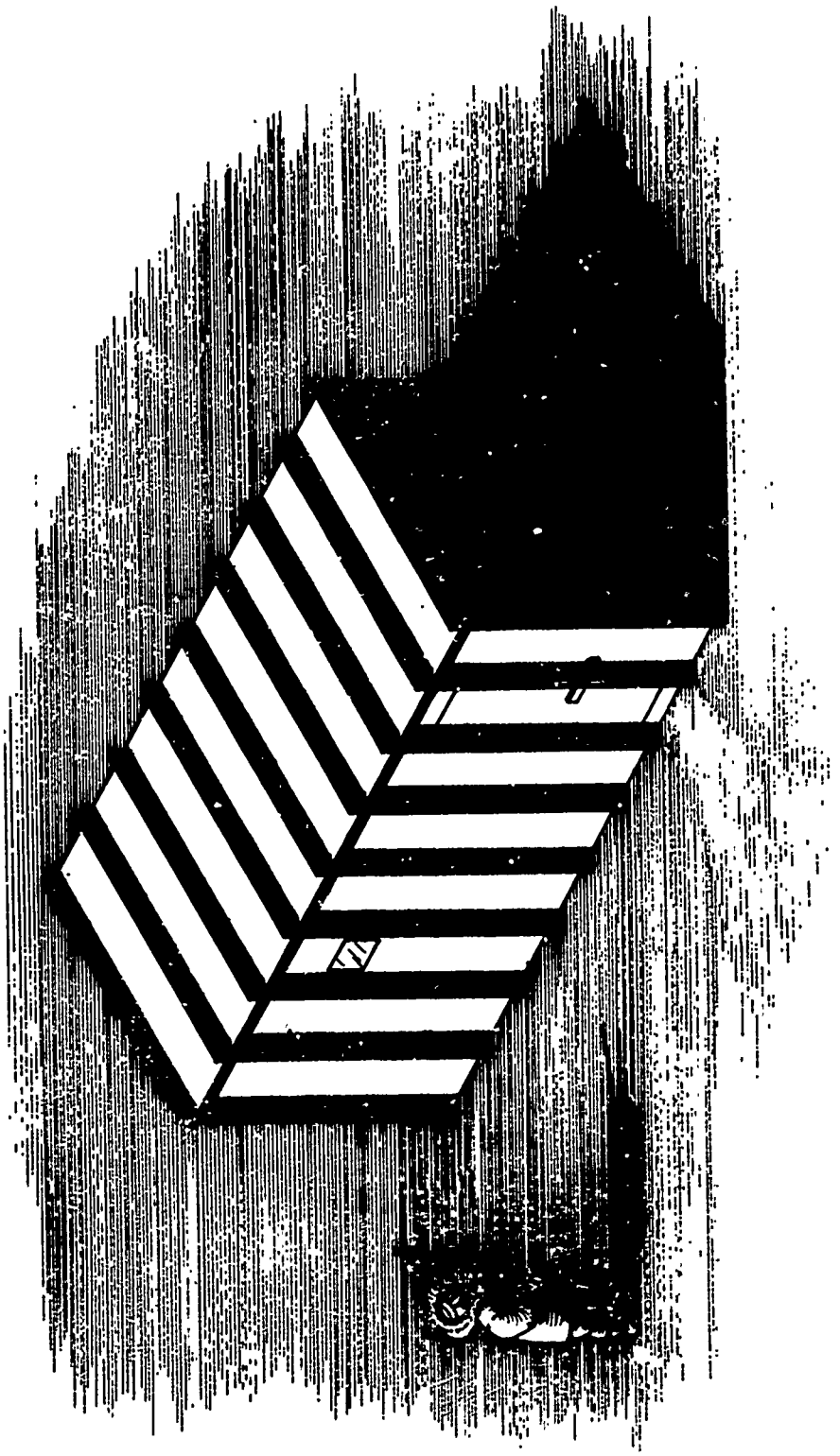
Can be used anywhere. Evaluated in climatic hangar at Eglin Air Force Base. Five structures used on a classified project in Alaska.

7. Logistical Data:

Cost of tooling and moulds to produce a prototype is estimated at $25,000.00. In mass production, it would be competitive with the Jamesway. The Tooele, Utah Army Depot has five of these units.

8. Remarks:

Designed by USACRREL constructed by Raypan Development Co., Inc. 5600 - Pacific Bld., Huntington Park, California.



1. Name of Shelter: Disposable Shelter of Crimped Foam Board Panels

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

USA Cold Regions Research and Engineering Laboratory

5. Physical Characteristics:

Width 16 ft. length variable. Height, 8 ft. Constructed from foam board, 1" thick core of 2 lb/ft^3 polyurethane foam and skins of plastic impregnated kraft paper. Packed in 8' by 4' bundles.

6. Concept of Use:

This shelter can be packed in or air dropped to a small group in a remote mountainous area or to victims of an aircraft crash to provide a short time living environment. Easily assembled and expendible. Light and cheap.

7. Logistical Data:

An inexpensive shelter designed at USACRRFL. A prototype constructed for test and evaluation. Stock is off the shelf items.

8. Remarks:

Designed by USACRREL.

1. Name of Shelter: Modular Panel Structure

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

USA Cold Regions Research and Engineering Laboratory

5. Physical Characteristics:

Structure is of composite panels, fire resistant 2 lb/ft^3 polyurethane core, 2 inches thick, 2 x 2 inch wood perimeter framing and high impact polyvinyl chloride, skins. 1/16 in. thick. Side panels are 4' x 8'. Roof and floor are 4' x 16' sections. The weight of a 16' x 24' unit with all component parts is about 28 tons.

6. Concept of Use:

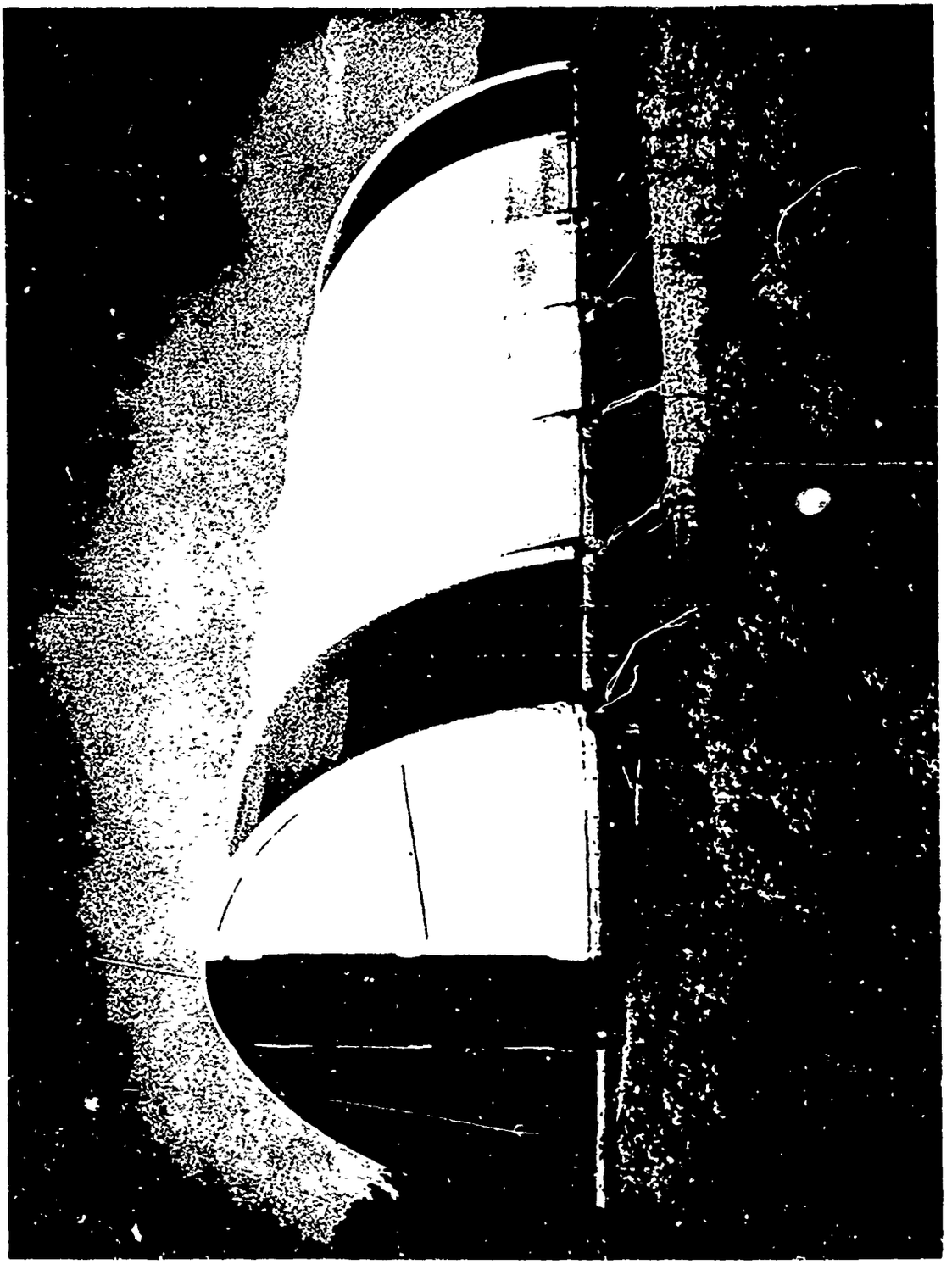
Adequate shelter for a small group of scientists or research engineers (8 to 20) in remote Arctic regions for a maximum stay of 8 weeks. Housing units may be easily shipped by aircraft. Simple to erect and disassemble because support personnel will not be involved.

7. Logistical Data:

Prototype unit developed only for test and evaluation.

8. Remarks:

Contractor experienced problems in the fabrication of composite panels due to inexperience. Thermo conditions were observed to cause delamination of the composite panels. Composite materials which have since become available have made this design obsolete.



1. Name of Shelter: Redesigned Jamesway Shelter

2. Type of Shelter:

Non-Rigid
Frame-Type

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

USA Cold Regions Research and Engineering Laboratory

5. Physical Characteristics:

Square aluminum tubes used for ribs and purlins. Insulation consists of inner and outer skins of elastomer coated nylon bonded to 3/4 inch of flexible urethane foam. Width is 16 ft in the form of an arch with a semi-circle of 8 ft radius. Length is flexible as the sections are 4 ft long. A 24 ft model was used for testing.

6. Concept of Use:

This model was constructed under an intra-service agreement with the U.S. Army Natick Laboratories for test and evaluation at USACRREL.

7. Logistical Data:

One of a kind developed at a cost of $25,000.00.

8. Remarks:

Designed by Natick Laboratories and procured by same. Floor panel packing boxes are 8' in length and weigh 534 pounds. Under pinning required to support structure. Vapor migration through joints caused some condensate drip in winter from ribs and purlins. Interior vestibule incorporated in design. Concept does not lend itself to economical mass production because of required hand welds.

1. Name of Shelter: Dow Chemical Co. Insulated Panel Structure

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

USA Cold Regions Research and Engineering Laboratory

5. Physical Characteristics:

Off the shelf panels used for large freezer and cold storage plants. Panels consist of core of fire retardent 1.9 - 2.0 lb/ft^3 polystyrene bonded to plywood aluminum, or plywood and aluminum combination skins in a wide thickness range. Lock up to a water and air tight seal. A 16 ft by 24 ft by 8 ft high structure erected at Hanover, N.H. for evaluation.

6. Concept of Use:

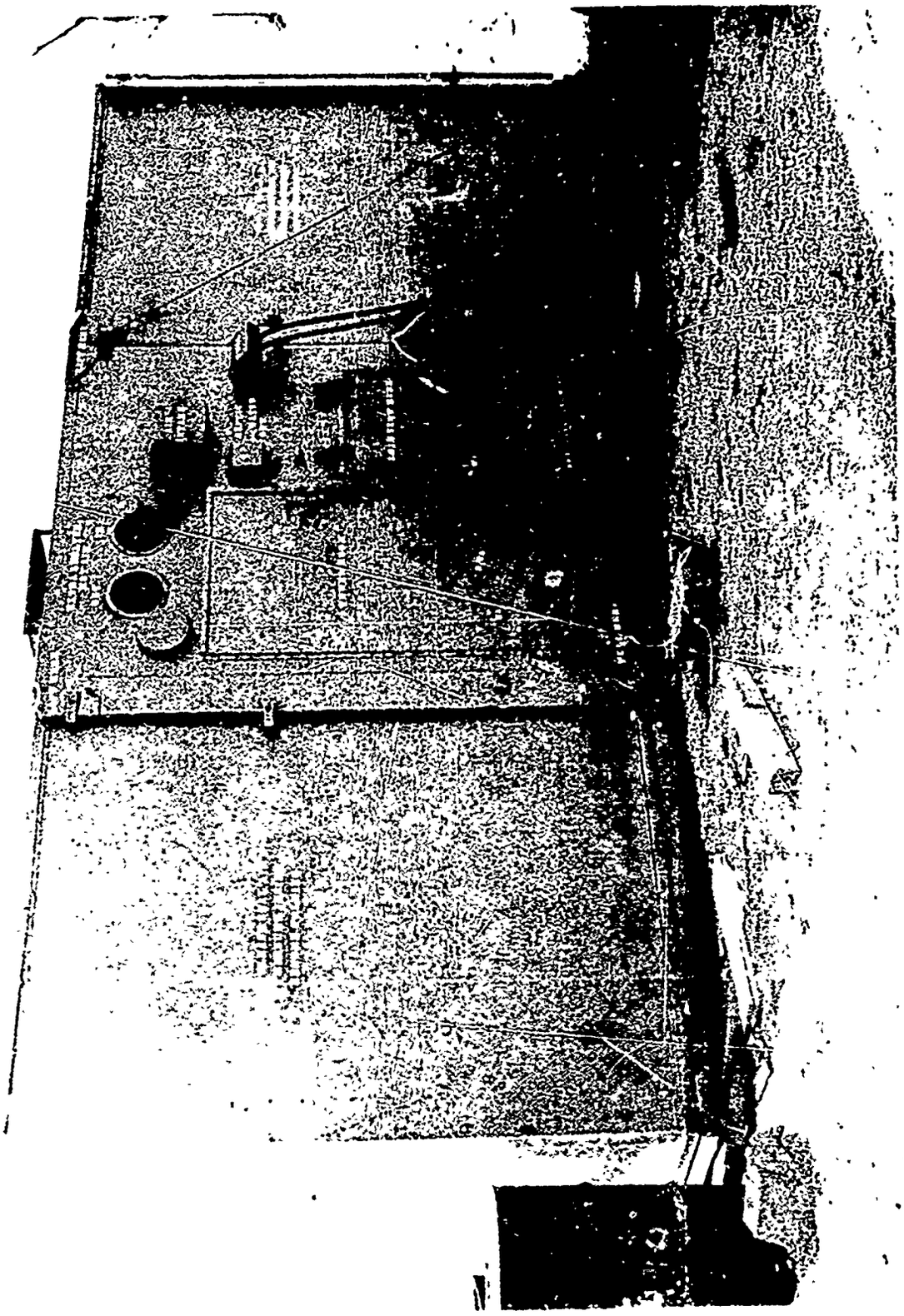
Erected at USACRREL, Hanover, N.H. for test and evaluation. Second structure in use in Alaska to enclose a sewage treatment plant. Test structure moved three times. Excellent structure for permanent or semi-permanent facilities in cold regions.

7. Logistical Data:

Sections may be purchased off the shelf from Dow Chemical Co. and assembled in various sizes. Cost of a 16' x 24' x 8' unit was $2,600.00 in 1964.

8. Remarks:

Panels available from Dow Chemical Co. Structure tested suitable, no leaks from blowing rain or melting snow. Snow loading had no effect. Can take better than the 50 psf design load. Excellent for keeping heat in or out.



1. Name of Shelter: Complete Small Party Camp with Installed Utilities

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

USA Cold Regions Research and Engineering Laboratory

5. Physical Characteristics:

Complete shelter facilities and contributing support equipment (heat, power, water supply, sanitation) for maintenance of arctic camp for six people, two structures are included in this complex. Each unit weighs less than 3,000 lbs and may be loaded into a 8' x 8' x 12' volume.

6. Concept of Use:

Adequate shelter plus the utilities needed to provide living and working environment for six personnel. The various units are air transportable.

7. Logistical Data:

One prototype complex (consisting of all facilities for six personnel) has been developed.

8. Remarks:

In the folded or traveling configuration, all facilities are enclosed, safe from damage or pilferage. Units can be sling lifted by H34 class helicopter. To utilize all possible heat of combustion and overcome the high specific fuel consumption inherent in small gas turbines, the total energy concept pioneered to USASIPRE (USACRREL) was utilized (TR-168, December 1965).

1. Name of Shelter: Walter Kidde Inc. Inflatable Rib Arch

2. Type of Shelter:

Non-Rigid

3. Current Status:

Standard

4. Responsible Engineering Activity:

USA Cold Regions Research and Engineering Laboratory

5. Physical Characteristics:

Consists of 3" diameter rubberized fabric tubes which are inflated to 100 psi to form rigid arches, and an impregnated nylon cover. When deflated and stowed, it is very light and compact.

6. Concept of Use:

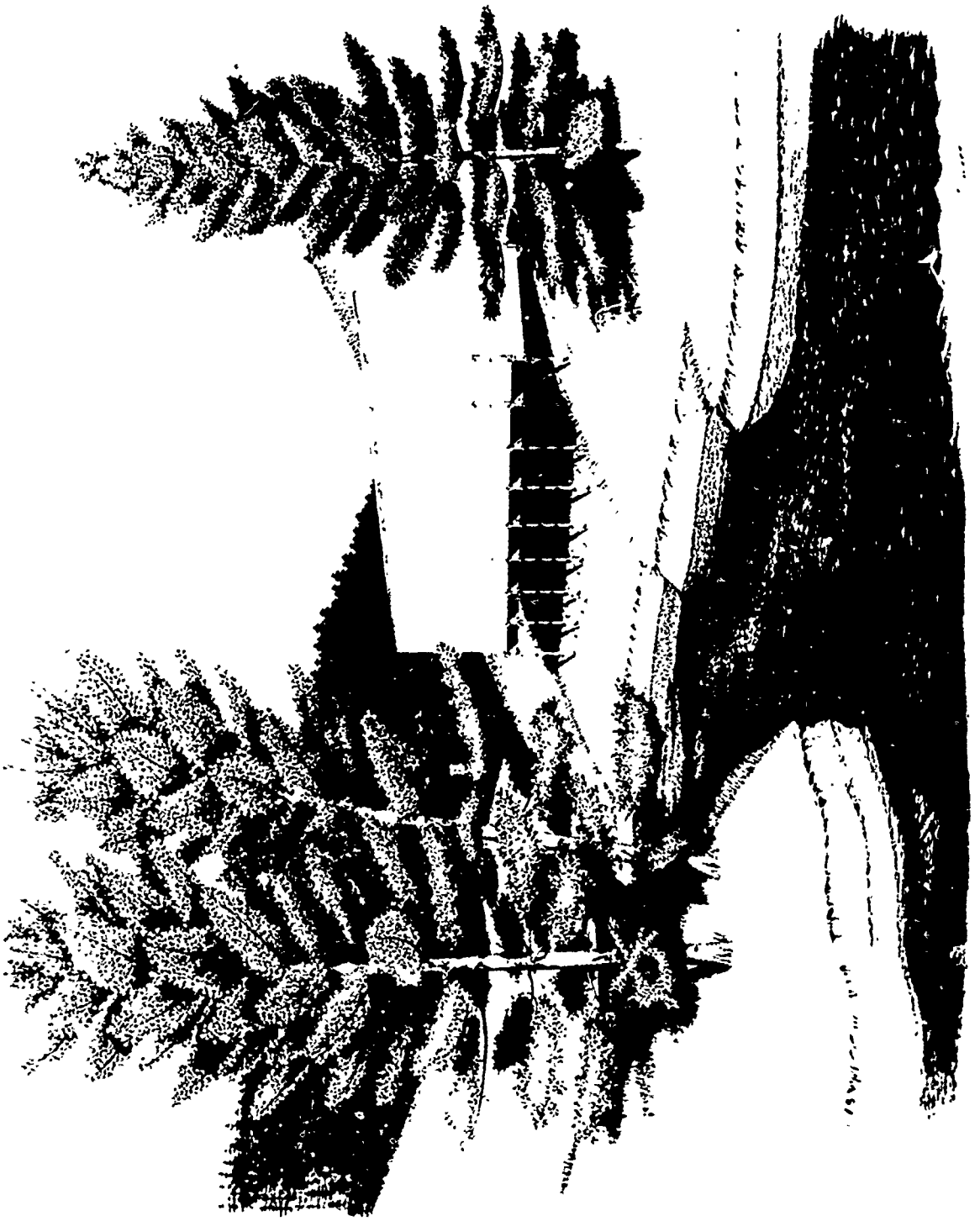
Has merits as an emergency shelter or for vehicle repair and maintenance on the trail. Easily assembled in approximately 2-1/2 hours.

7. Logistical Data:

One standard housing has been tested at USACRREL. Difficulties to maintain pressure in arches. Structure collapses under snow load.

8. Remarks:

The housing was developed by Walter Kidde, Inc.



1. Name of Shelter: Modular Folding Test Building

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Concept Stage

4. Responsible Engineering Activity:

USA Cold Regions Research and Engineering Laboratory

5. Physical Characteristics:

Panels have a perimeter framing of wood, a structural core of closed cell self-extinguishing, rigid polyurethane foam, and rigid plastic skins, "Simmons" Roto-locks for locking panels together and gaskets to seal the joints. Steel adjustable legs for foundation. Width 16', height 8' and length any multiple of 3 ft.

6. Concept of Use:

No prototype constructed. The structure would be packaged in 8' x 3' packages and could be handled by 4 men. Easily air lifted and simple to erect under adverse weather conditions by inexperienced construction men.

7. Logistical Data:

None in development. A USACRREL in-house design available. Needs additional work due to complexities of hinges, connectors, and seals for a folding module.

8. Remarks:

Panels and hardware readily available from off the shelf.

1. Name of Shelter: Folded Plate Concept

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Concept Stage

4. Responsible Engineering Activity:

USA Cold Regions Research and Engineering Laboratory

5. Physical Characteristics:

This structure utilizes composite panels having foam cores and plastic skins in a folded plate configuration. Gasketed and locked together with camlock fasteners. Size is feasible.

6. Concept of Use:

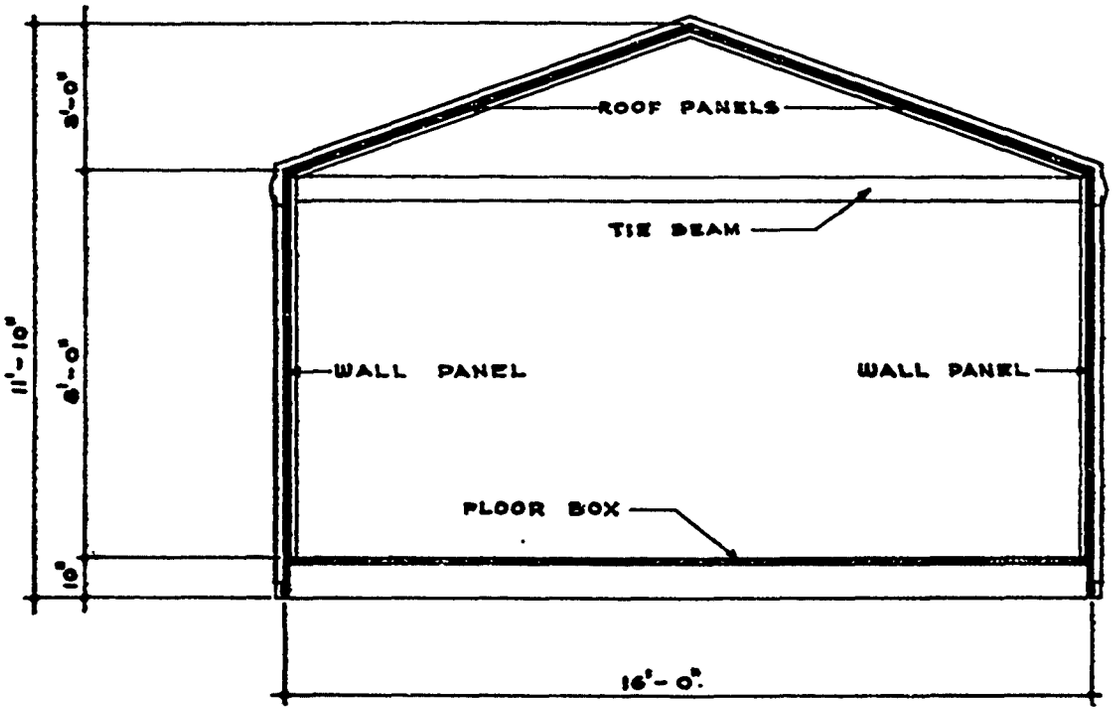
Basic shelter in Arctic environment.

7. Logistical Data:

None in development, a preliminary design accomplished at USACRREL.

8. Remarks:

Suitability fair. Poor wind flow around the building but good wind resistance. Complex panels and under pinning. Many nooks and cranies in structure that could not be utilized.



SCALE: $\frac{1}{2}$" = 1'-0"

1. Name of Shelter: Gabled Straight Wall Structure of Composite Foam and Organic Plastic Panels and Structural Members

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Concept Stage

4. Responsible Engineering Activity:

USA Cold Regions Research and Engineering Laboratory

5. Physical Characteristics:

Thin flat composite panel trusses which are also foam and organic plastic resin composites. Side panels are 8' high. The floor panels are 16' wide. Floor panels would, by the use of cam-locks be rigidly locked to form a continuous membrane of expandable length. Side panels are locked to floor in same manner.

6. Concept of Use:

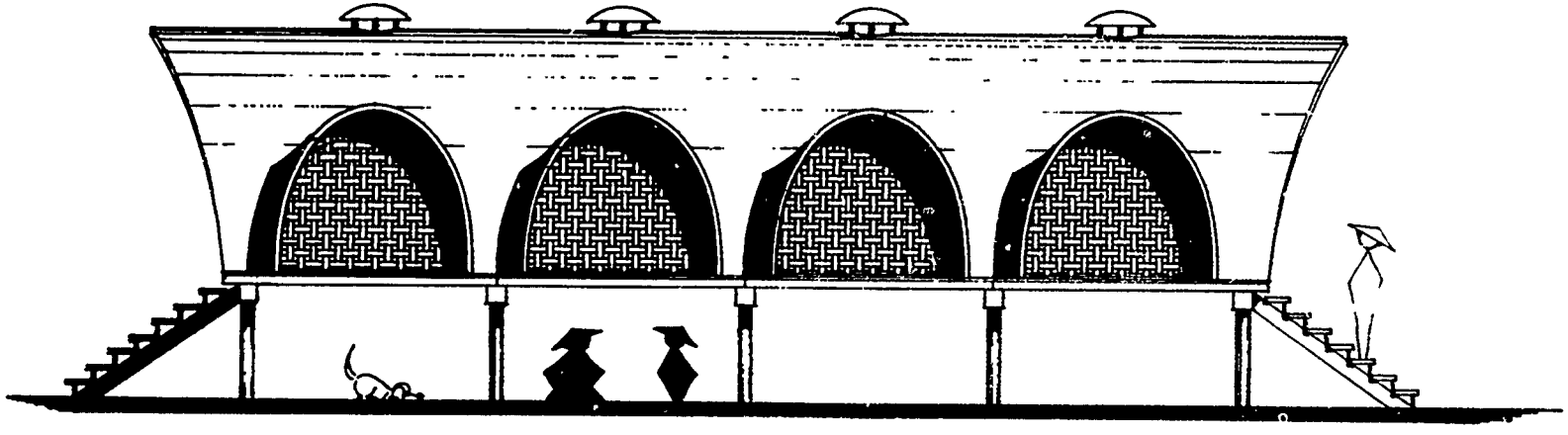
Basic shelter for Arctic environment. The floor panels serve also as packing boxes for storage or shipment of the structure.

7. Logistical Data:

No design problems are anticipated.

8. Remarks:

All detailed design work remains to be done.



SIDE ELEVATION

SCALE: $\frac{1}{4}$"= 1'-0"

1. Name of Shelter: The Concept of Production of Shelters in Remote Areas by Means of the Use of an Insulating/ Structural Rigid Foam of Sulfur

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Concept Stage

4. Responsible Engineering Activity:

US Army Cold Regions Research and Engineering Laboratory

5. Physical Characteristics:

To produce a foam by mixing raw materials of sulfur and additives. The foam to be placed in panels and when cured to have small uniform cell sizes. The panels to be low in thermal conductivity, and strong.

6. Concept of Use:

Could be used for insulating roads, airfields and floor slabs in areas of frozen ground; field injected core fill for composite panels used in constructing shelters or spray-in-place over a light inflatable membrane to provide personnel shelter and weather proof material storage. No problem in transporting materials and equipment.

7. Logistical Data:

This material for the unit is in the concept stage. Some experimental work has been done in producing a sulfur foam. Results to date are encouraging. Needs further research.

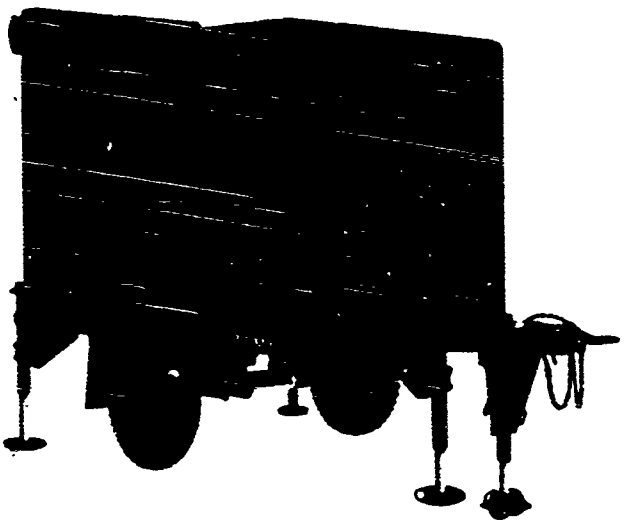
8. Remarks:

All materials and equipment are off the shelf items and can readily be procured.

U.S. Army Missile Command

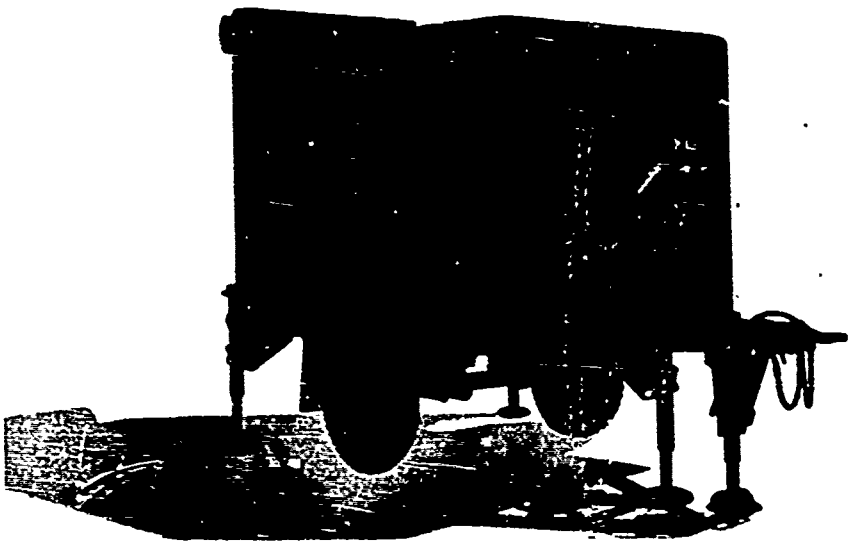
UNCLASSIFIED

INFORMATION COORDINATION CENTRAL



UNCLASSIFIED

PLATOON COMMAND POST



1. Name of Shelter: Electric Equipment Shelters (HAWK Air Defense Guided Missile System) Trailer Mounted (M390)

2. Type of Shelter:
Rigid
Non-Expandable

3. Current Status:
Limited Procurement

4. Responsible Engineering Activity:
U. S. Army Missile Command

5. Physical Characteristics:

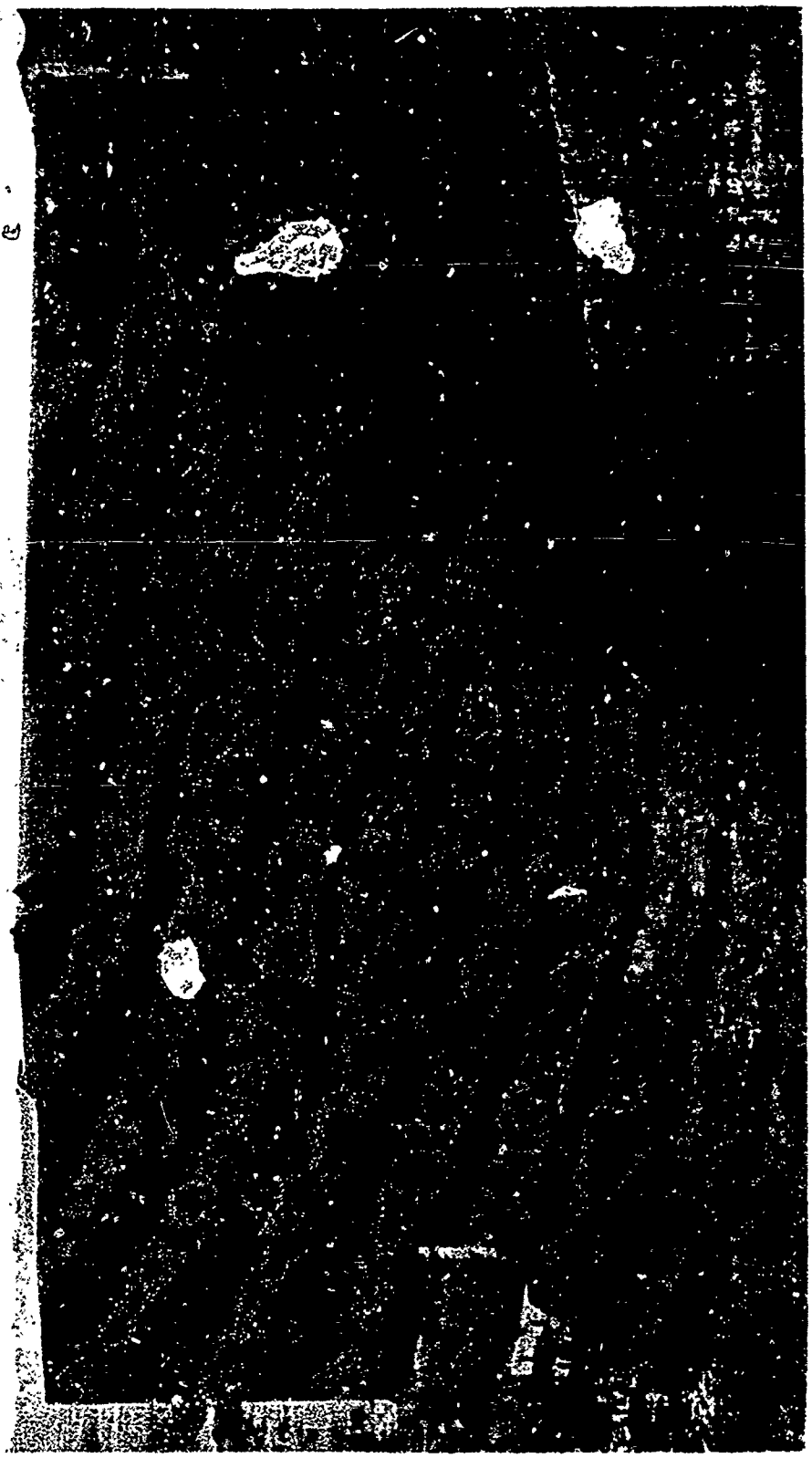
Platoon Command Post, Trailer Mounted	Information Coordination Central, Trailer Mounted
Weight: 8,170 lbs.	Weight: 8,500 lbs.
Height: 6'10"	Height: 6'10"
Width: 8'	Width: 8'
Depth: 12'1"	Depth: 12'1"
Volume: 656 cu.ft.	Volume: 656 cu.ft.

The material used in these shelters consists of an aluminum inner and outer skin reinforced by bonding with plywood. Shelters are insulated with an expanding type insulation material.

6. Concept of Use:
These shelters are towed by either the M36 or HAWK XM754 Self Propelled Launcher. The Platoon Command Post Shelter houses the monitoring, plotting and fire control equipment in the HAWK Self Propelled Firing Platoon. The information coordination central houses the Automatic Data Processor and Communication Equipment in the Improved HAWK Firing Battery. The Platoon Command Post under tactical condition would move several times daily. The Information Coordination Central would move twice daily. Neither item is helicopter or Phase II Air Transportable unless removed from trailer.

7. Logistical Data:
The production of the Platoon Command Post has been completed. The production of the Information Coordination Central is in process. There will be approximately 180 each of this family shelters when production is completed. The total development costs of this shelter is estimated to be $300,000.00. The unit cost is approximately $11,000 per each. Spare shelters are not stocked.

8. Remarks:
The Technical Data Package for this family of shelters is complete. The item is considered suitable for the intended use with minimum amount of problems occurring in the field. The shelters are procured sole source from Craig Co., Lawrence, Mass.



1. Name of Shelter: Electric Equipment Shelters (HAWK Air Defense Guided Missile System)

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Limited Procurement

4. Responsible Engineering Activity:

U. S. Army Missile Command

5. Physical Characteristics:

Battery Control Central AN/TSW-2 Y117

Weight: 5,300 lbs.
Height: 7'-6-1/4"
Width: 7'1"
Depth: 15'10"
Volume: 680 cu.ft.

The material used in these shelters consist of an aluminum inner and outer skin reinforced by bonding with plywood. Shelters are insulated with an expanding type insulation material.

6. Concept of Use:

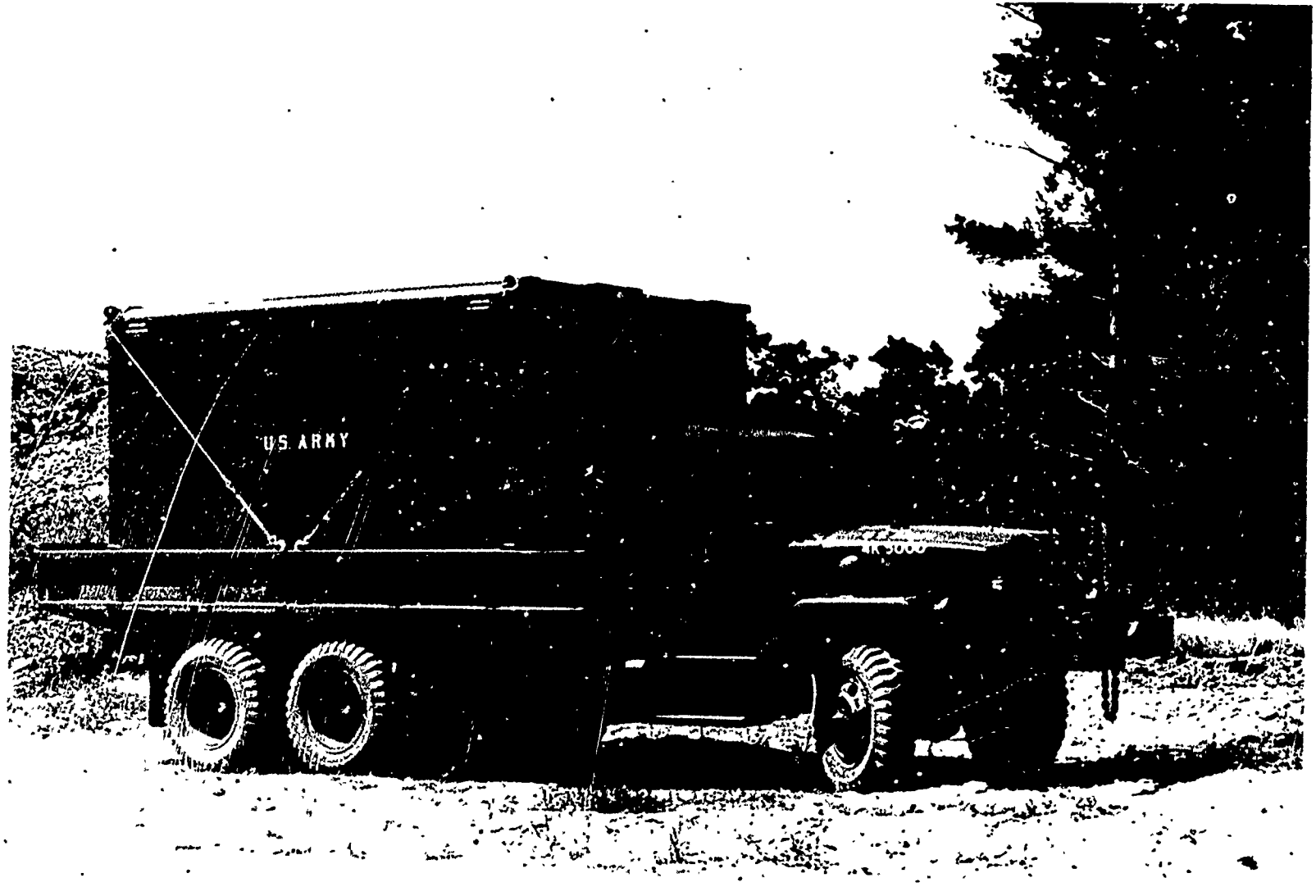
This shelter houses the monitoring, plotting and fire control equipment of the HAWK Battery and constitutes the Headquarters for the tactical control officer.

7. Logistical Data:

There are approximately 800 of this family of shelters in the field. The development of this family of shelters began in 1955 and the development costs are not available. The unit cost of the shelters is approximately $8,700.00 per each. There is no development effort being conducted at this time on these shelters. Spare shelters are not stocked.

8. Remarks:

The Technical Data Package for this family of shelters is complete. The item is considered suitable for the intended use with minimum amount of problems occurring in the field. The shelters are procured by USAMICOM sole source from Craig Co., Lawrence, Mass. Two attempts of procurement of shelters from other sources resulted in litigation.


U.S. ARMY

1. Name of Shelter: Craig S-442 Shelter

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Missile Command

5. Physical Characteristics:

Aluminum monocoque construction with spaces filled with insulating foam. Shelter is 161 inches x 88 inches x 84 inches. Weight is 1,700 pounds empty.

6. Concept of Use:

CHAPARRAL Support Maintenance Shop Set, CHAPARRAL Organizational Shop Set, FAAR Field Maintenance Shop Set. Transported on M36A2 truck. Frequency of move will depend on field utiiization.

7. Logistical Data:

The CHAPARRAL System, including FAAR will require 138 shelters at an average unit cost of $18,000.00.

8. Remarks:

Form 1, Cat. E. Doc. Package will be delivered December 1969.

US ARMY

1. Name of Shelter: Shelter: AN/TSM-93 or AN/TSM-94

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Missile Command

5. Physical Characteristics:

Length: 178 inches
Height: 87 inches
Width: 83 inches
Weight: 2,200 lbs.
Materials: Aluminum Structural Members and Skin

6. Concept of Use:

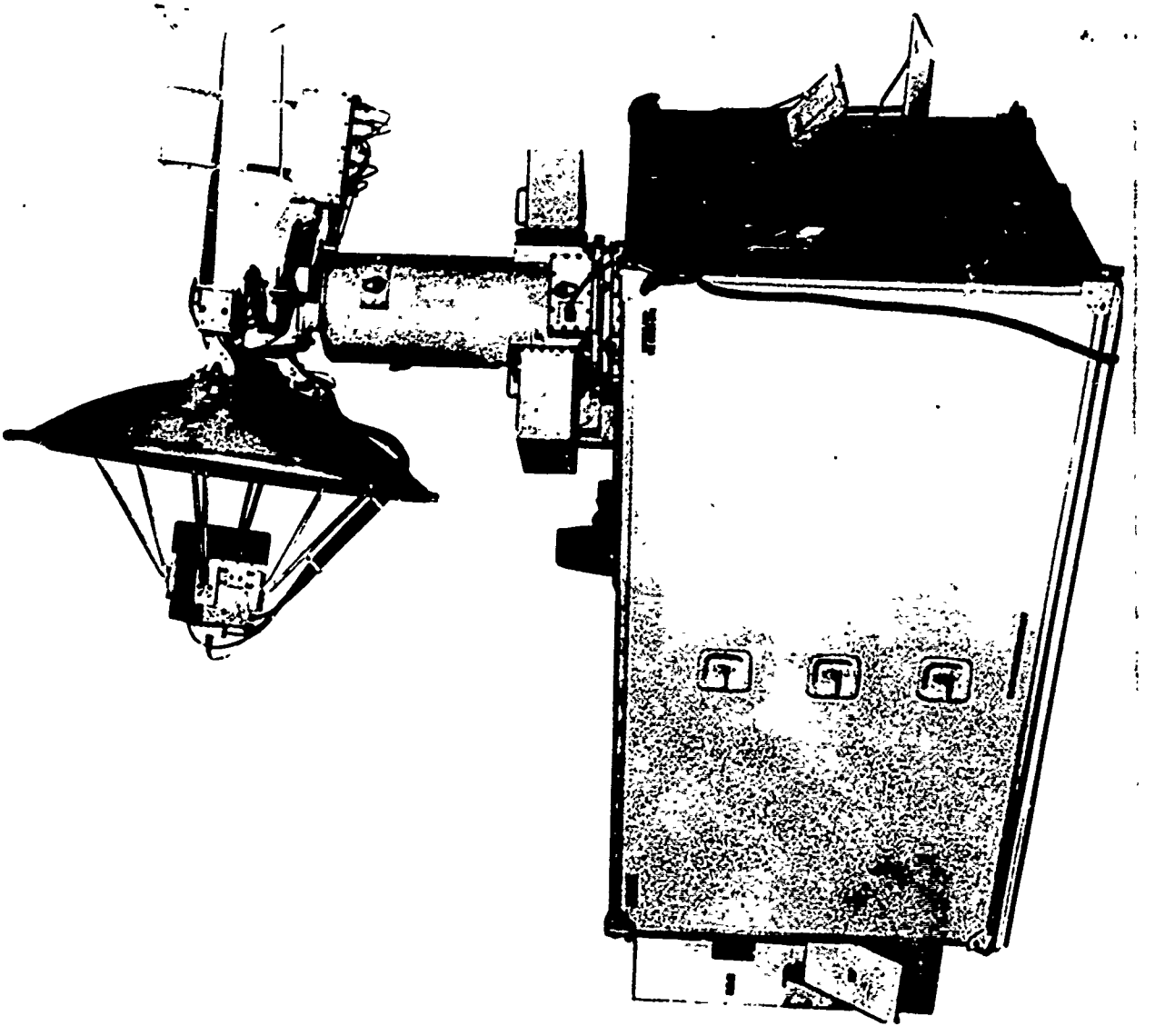
House electronic test equipment and repair facilities for Army Field Support to LandCombat Weapon Systems. Where and How Used: Used by Military Personnel in the field as well as Depot. Transported on a M-55 truck. Frequency of move is dependent on troop movements.

7. Logistical Data:

Quantity in System: 35
Quantity in Procurement: 46
Cost per Shelter: $15,310.00
Stock Status: No stockage at this level
Quantity in Development: None

8. Remarks:

Technical Data Package: Drawings released
Procurement Experience: Fixed Price
Training: None Required
Maintenance Problems: Negligable
Where & By Whom Procured: MICOM: LCSS Product Office
Suitability of Item: Meets Requirements



1. Name of Shelter: S-141

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Missile Command

5. Physical Characteristics:

Length: 144 inches
Height: 82 inches
Width: 82 inches
Shipping Weight: 5,000 pounds

6. Concept of Use:

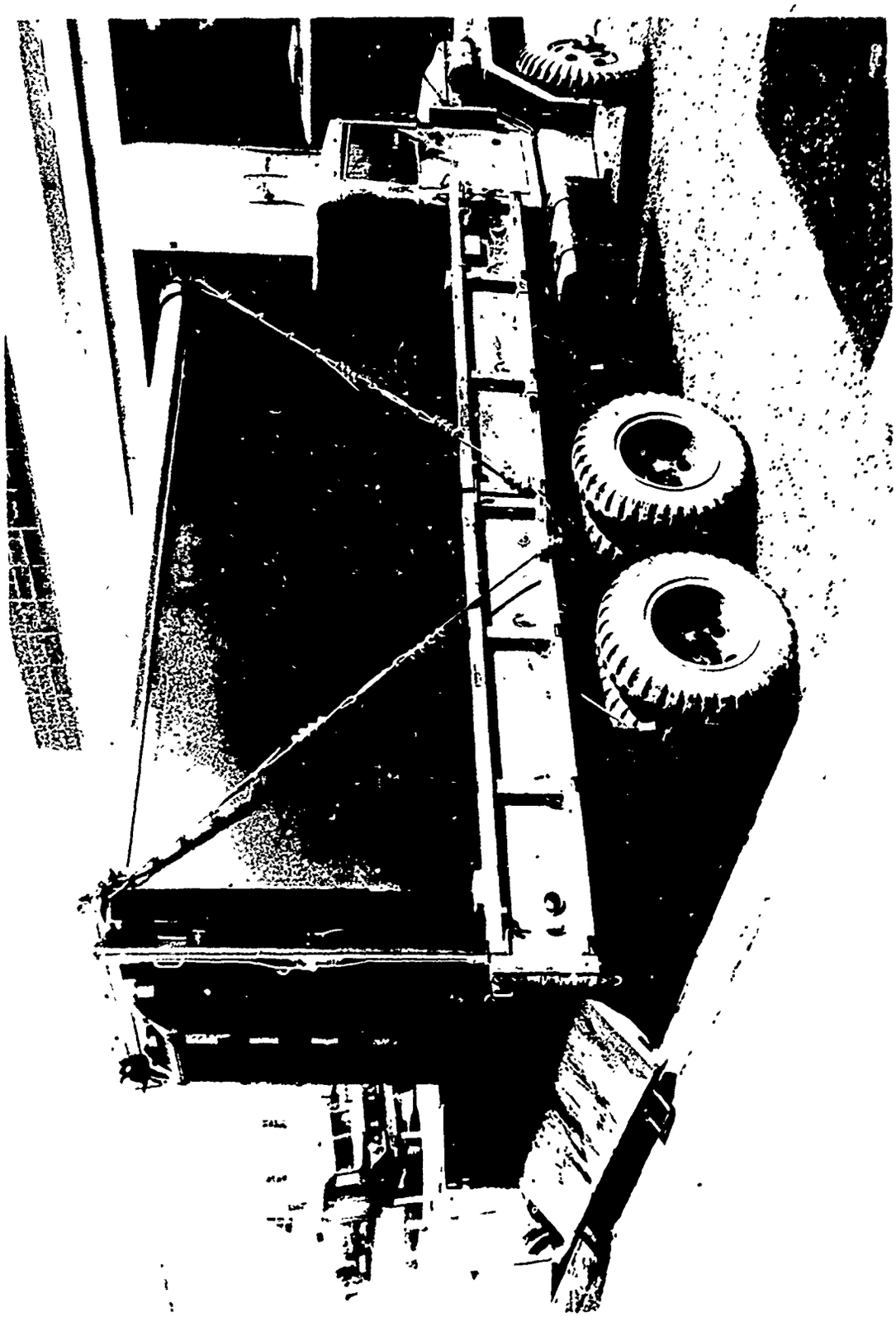
The S-141 is used to house the portable ground station of the Mobile Target Tracking System (MTTS) used to control and track target missiles. The station can be air transported (including helicopter). There will be five (5) systems with four (4) set locations and one "floating" system.

7. Logistical Data:

The Army has five MTTS's which use the S-141 shelter. The MTTS costs approximately $450,000.00. There are no plans at present to buy more MTTS's.

8. Remarks:

The MTTS which uses the S-141 was procured from Epscio Inc. It is contractor operated and maintained. The MTTS has been approved as suitable for issue.



1. Name of Shelter: Redeye Shelter

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Army Missile Command

5. Physical Characteristics:

Length: 187.5"
Width: 83.5"
Height: 83.75"
Weight: 4,000 lbs.
Cubic Feet: 758.8
Square Feet: 108.7

6. Concept of Use:

Utilized by DS and GS Support Units. XLWB M36 Truck. Moved in unit changes location.

7. Logistical Data:

Three each U.S. Army Eight (Korea), six each, U.S. Army Seventh (USAREUR), one each 65th OD Det (USARAL), three each held in CONUS for USARPAC.

8. Remarks:

Items were modified at Tooele Army Depot from excess Pershing shelters at a cost of approximately 10K each.

U.S. Air Force

1. Name of Shelter: Utility Shelter

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

Air Mobility Division, Deputy for Limited War, ASJM, ASD, WPAFB, Ohio

5. Physical Characteristics:

Packaged: 9' x 8' x 6'
Assembled: 30'6" x 45' x 12'

Materials: Panels - Aluminum Skinned Foam Panels
Beams - Aluminum
Fabric - Neoprene Coated Nylon

6. Concept of Use:

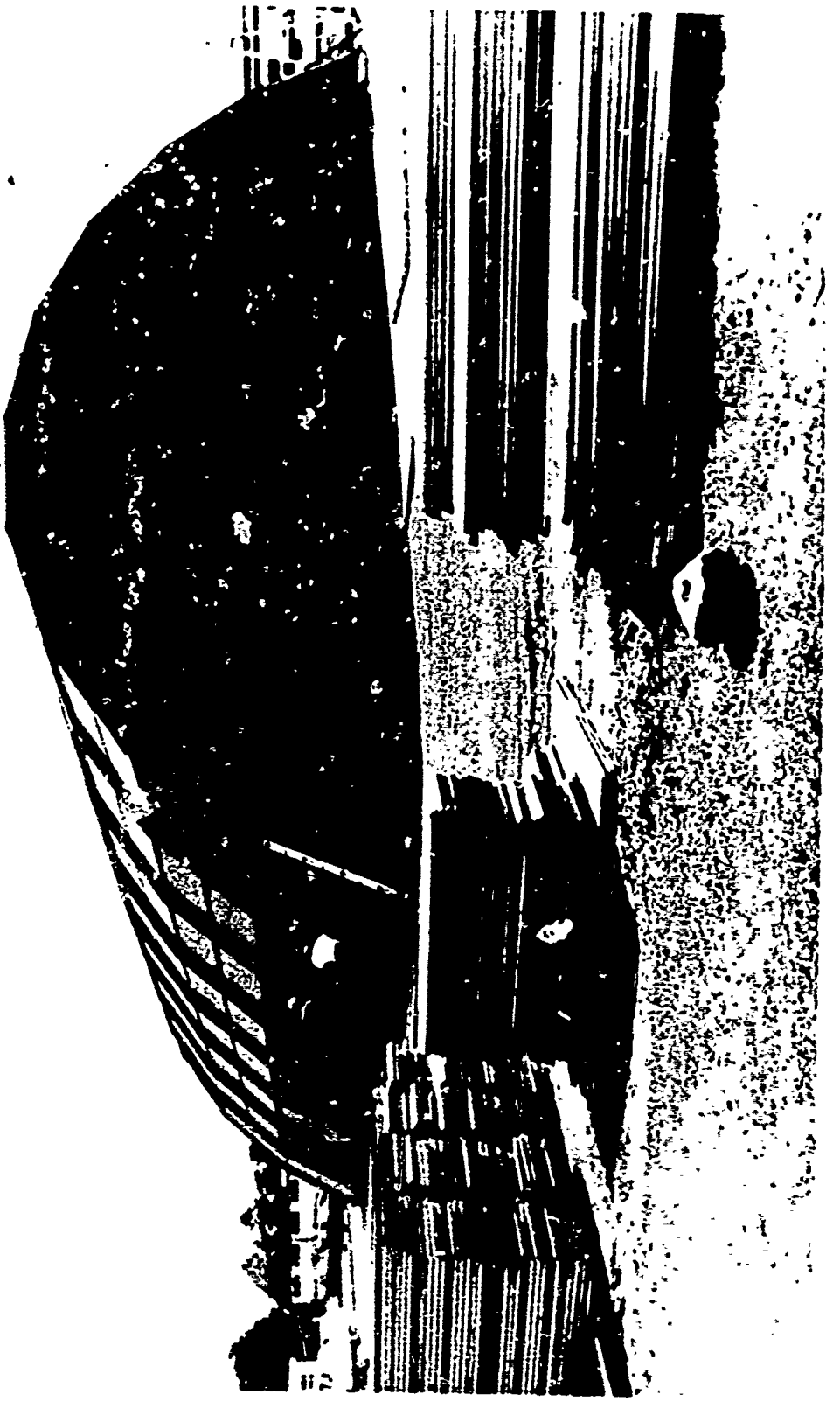
Shelter shipped by C-130 on one 463L pallet, 4 shelters/a/c will be used as dining hall, work area, truck (engine shop) Chapel, storage, etc. (General Purpose). Shelter assembled in approximately 50 man hours.

7. Logistical Data:

Parts and pieces for utility shelter are identical and interchangeable with the Hangar. Twenty shelters being fabricated by Brunswick Corporation. Cost/Shelter in quantity of 200, approximately $20,000.00.

8. Remarks:

None



1. Name of Shelter: Aircraft Maintenance Dock (Hangar)

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

Air Mobility Division, Deputy for Limited War, ASJM, ASD, WPAFB, Ohio

5. Physical Characteristics:

Packaged: 2 - 8' x 9' x 7' (Two 463L pallets)
Assembled: 58' x 75' x 22'

Materials: Panels - Aluminum skinned foam panels
Beams - Aluminum
Fabric - Neoprene coated nylon

6. Concept of Use:

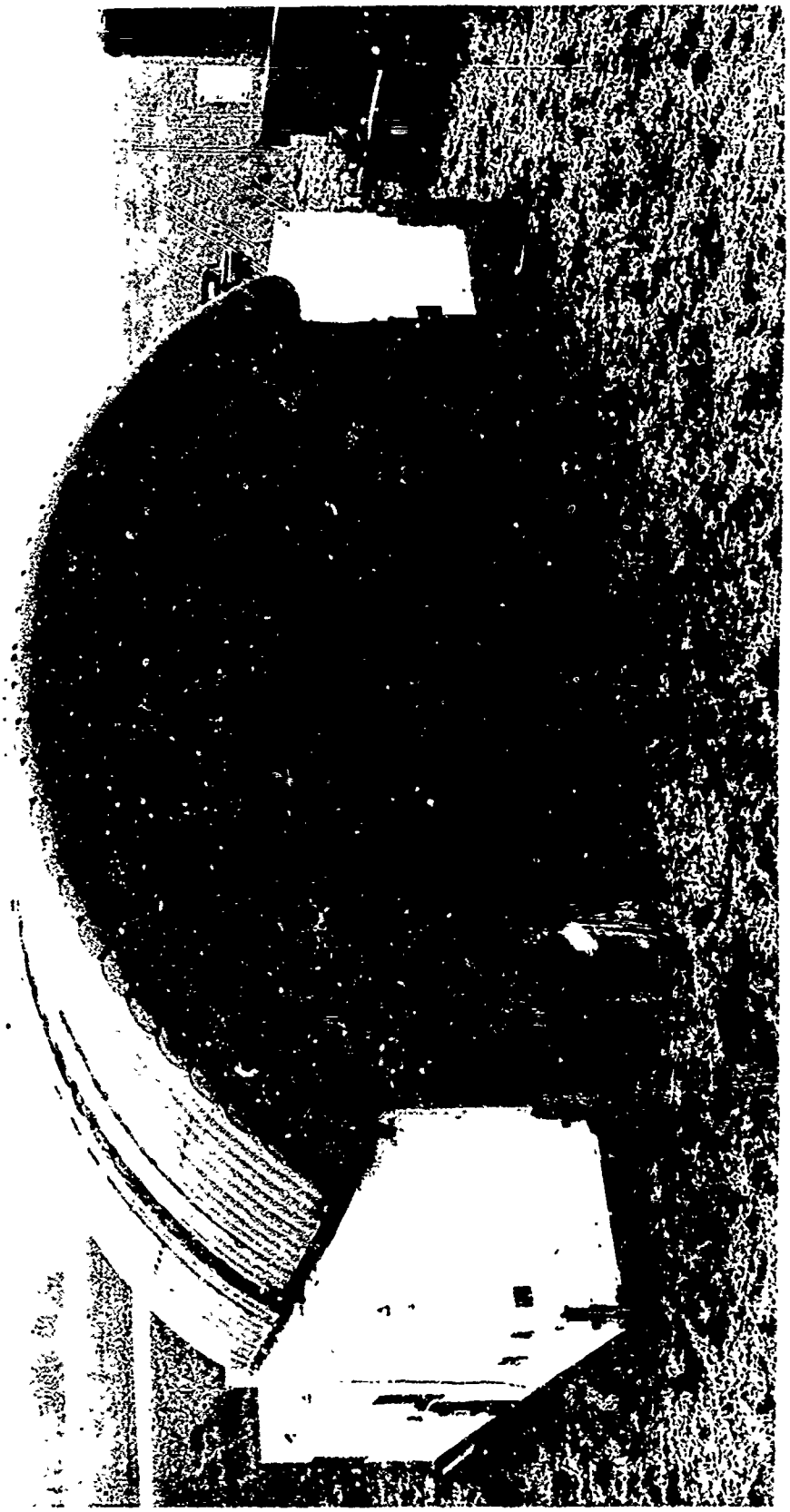
Shelter shipped on two 463L pallets. Two hangar/a/c will be used as a Maintenance Hangar for all Century Series Fighter AC (except F111). Assembly approximately 100 man-hours.

7. Logistical Data:

Parts and pieces for hangar identical and interchangeable with the Utility Shelter. Five shelters being fabricated by Brunswick Corporation. Cost/Shelter in quantity of 50, approximately $42,000.00.

8. Remarks:

None



1. Name of Shelter: Shelter, 407L, Expandable Enclosure, ESD (Air Force)

2. Type of Shelter:

Combination rigid, expandable and air-supported shelter

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

Air Force Electronics System Division

5. Physical Characteristics:

The shelter consists of two large containers which hold the air inflatable portion of the shelter and the electronic equipment for air control. The boxes which are used to transport the shelter are unfolded and become the floor and side walls of the shelter. The inflatable sections become the roof and end walls of the shelter. The shelter is 43' wide, 16' long, 18' high and can be lengthened in 16' modules.

6. Concept of Use:

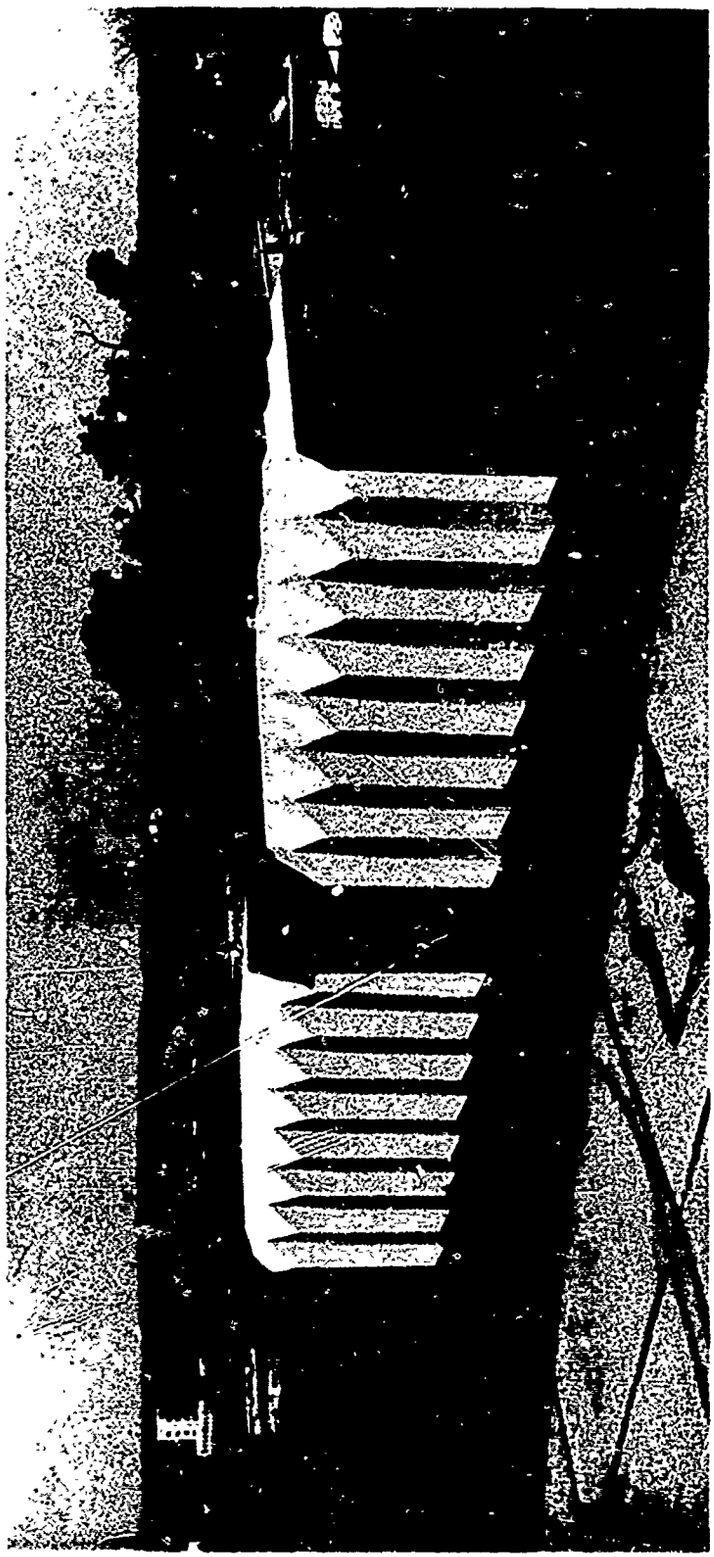
Developed to house and be used as part of the Air Force air control system.

7. Logistical Data:

This is a new item being developed by the Air Force. Hughes Aircraft has been awarded a contract in the amount of $65,000,000 for development of the shelter and its components.

8. Remarks:

None



1. Name of Shelter: Portable Personnel Housing Shelter (BARE BASE)

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

Air Force Bare Base Group

5. Physical Characteristics:

This shelter combines a rigid box/shipping container, folding 3" foam panels sandwiched between paper (roof) and 1" foam panels with a fiberglas skin (ends). The shelter is packed in a rigid shipping container which measures 3' by 8' by 13' when ready for transport. When erected, the shelter measures 13' wide, 35' long and 8' high.

6. Concept of Use:

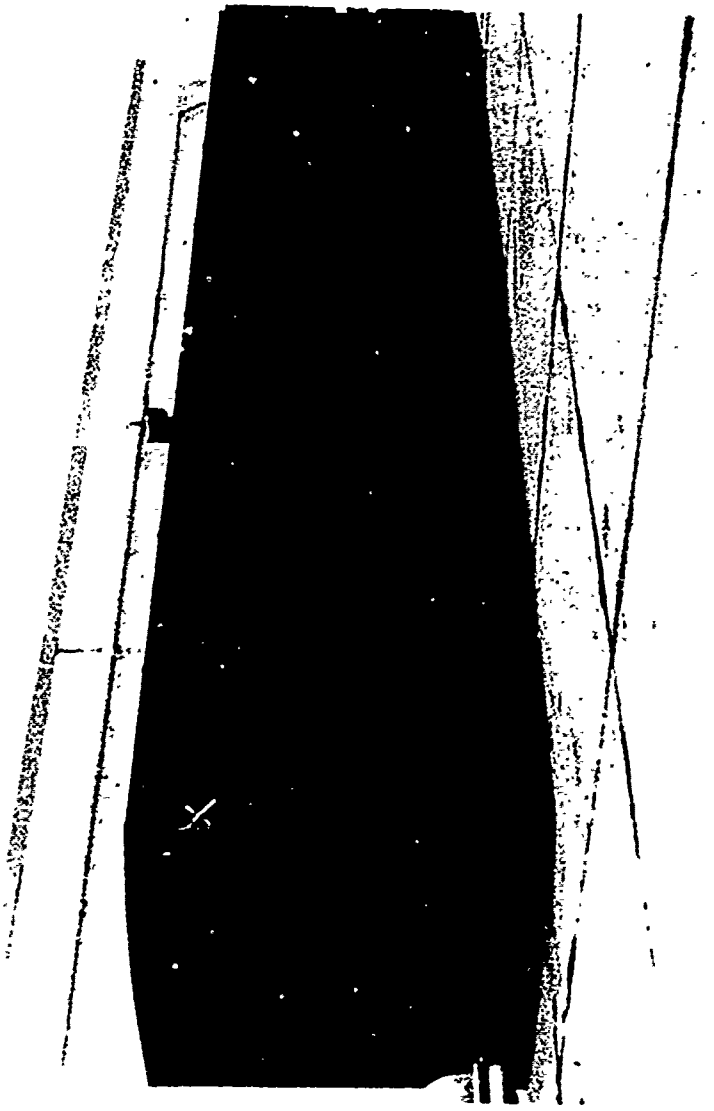
Developed as a personnel shelter to billet eleven troops in support of the Bare Base Task Force. The shelter can be transported by vehicle or aircraft.

7. Logistical Data:

A quantity of 300 shelters are being procured from Goodyear Aerospace at a cost of $9,500.00 each.

8. Remarks:

A Technical Data Package will be furnished the Air Force at the conclusion of the contract.



1. Name of Shelter: A/E29P-1, CB Shelter/Decontamination Unit

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

AFATL(DLGI) Eglin Air Force Base, Florida

5. Physical Characteristics:

8' wide, 32' long and 8' high. Weight - 12,000 pounds. Aluminum construction.

6. Concept of Use:

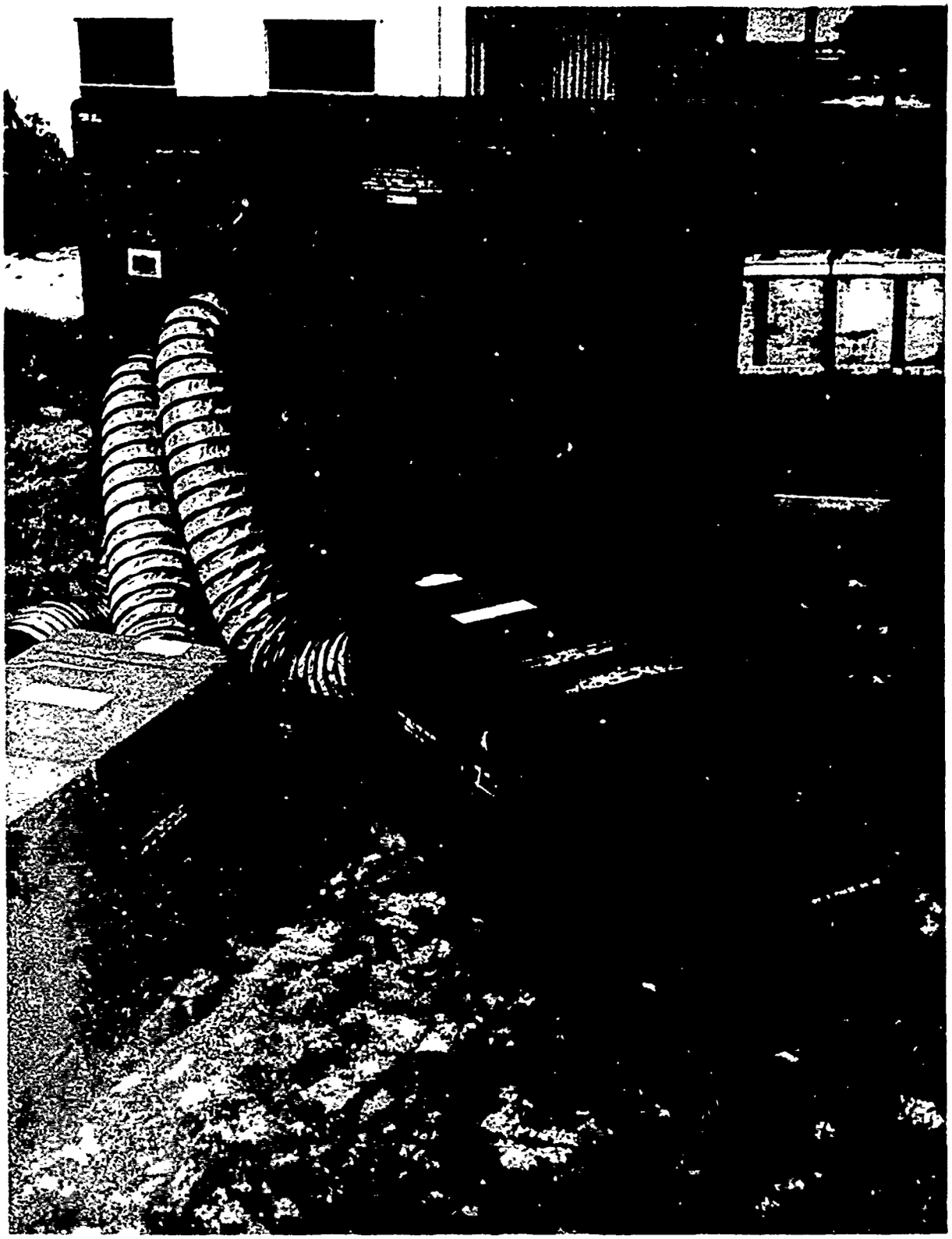
Used as self-contained, portable, air transportable CB shelter and personnel decontamination facility. Personnel enter from a contaminated environment, disrobe, take a shower and then put on additional protective gear for returning to duty, or just remain in the shelter to rest.

7. Logistical Data:

Two prototype units in development. None in system.

8. Remarks:

Completed engineering development. Procurement data package will be available 10 FY72.



1. Name of Shelter: CB Modification Kit for Structures

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

AFATL (DLGI) Eglin Air Force Base, Florida

5. Physical Characteristics:

8' wide, 12' long and 8' high. Weight - 3,000 pounds. Aluminum construction.

6. Concept of Use:

This mod kit can be attached by any shelter or structure to convert this shelter or structure into a CB collective protection unit. This is done by providing filtered air under pressure to the structure and by providing entry (air lock) and personnel decontamination (shower) facilities.

7. Logistical Data:

Two prototype units in development. None in system.

8. Remarks:

Transfer to Army 10 FY72 for completion.

U.S. AIR FORCE
408751

1. Name of Shelter: CB Protective Overlay/Aircraft Entrance

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

AFATL (DLGI) Eglin Air Force Base, Florida

5. Physical Characteristics:

8' wide, 20' long and 8' high. Weight - 6,000 pounds. Aluminum construction.

6. Concept of Use:

Used to protect the cockpit area of strike aircraft during periods of CB contamination. This CB protective overlay will permit aircrews to enter the aircraft directly from the CB modified flight line taxi.

7. Logistical Data:

Two prototype units in development. None in system.

8. Remarks:

Present effort to be completed and terminated.

1. Name of Shelter: CB Modification Kit for Flight Line Taxi

2. Type of Shelter:

Non-Rigid
Air-Inflated

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

AFATL (DLGI) Eglin Air Force Base, Florida

5. Physical Characteristics:

Aluminum frame-supported butyl rubber liner for crew compartment of standard USAF multi-stop vehicle (flight line taxi). This liner is pressurized with filtered air by filter/blower unit mounted in vehicle.

6. Concept of Use:

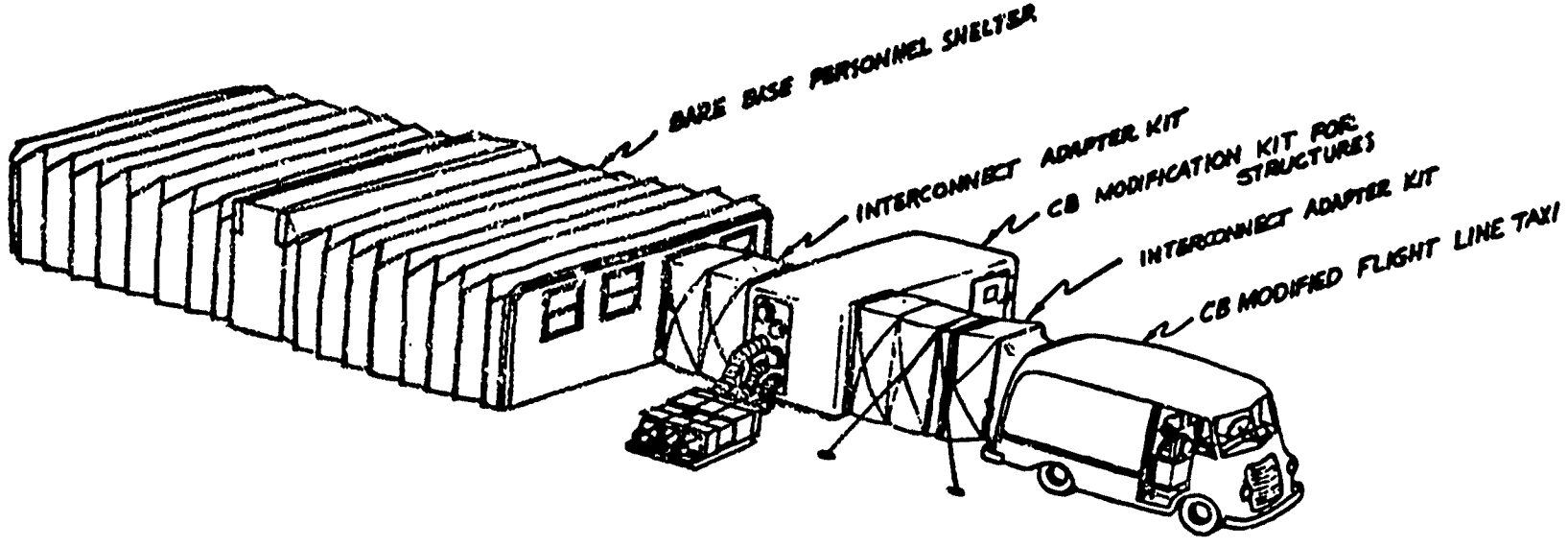
This CB modified flight line taxi will be used to transport air crews from shelters to cockpit of strike aircraft during a CB attack.

7. Logistical Data:

Four prototype units in development. None in system.

8. Remarks:

Technical Data Package to be completed in engineering development by 1st Quarter FY72.



TYPICAL APPLICATION OF CB EQUIPMENT WITH A SHELTER

1. Name of Shelter: Interconnect Adapter Kit

2. Type of Shelter:

Rigid
Expandable
Air-Inflated

3. Current Status:

Development

4. Responsible Engineering Activity:

AFATL (DLG. Eglin Air Force Base, Florida

5. Physical Characteristics:

This is a portable passageway consisting of an elastomer coated fabric over a metal framework. A mobile section is canti-levered from the rear of the CB modified flight line taxi. A static section must be assembled to the personnel shelter desired (i.e., A/E 29P-1). A mating kit door gives access from the static section to the mobile section and return.

6. Concept of Use:

This unit will mount on the back of the CB modified flight line taxi and can be attached in turn to a CB shelter and then to the CB protective overlay thereby permitting air crews to go from shelter to cockpit in a contamination free environment.

7. Logistical Data:

Two prototypes in development. None in system.

8. Remarks:

Scheduled for completion of engineering development in 4th Quarter, FY71.

1. Name of Shelter: Expandable Shelter/Container (BARE BASE)

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

Air Force Bare Base Group

5. Physical Characteristics:

This shelter is constructed of aluminum and vinyl cell foam wall panels. When the shelter is folded for storage and shipment, it measures 8'4" by 9' by 13'. When the shelter is expanded, it measures 25' wide, 13' long and 8'4" high.

6. Concept of Use:

Designed for use as a portable and highly mobile kitchen, Latrine unit, electronic shop, etc. When folded for shipment, it can be transported by helicopter, cargo aircraft, truck or dolly set.

7. Logistical Data:

The Air Force is procuring a quantity of 200 shelters from the Electro Mechanical Corporation at a cost of $11,000.00 each.

8. Remarks:

A Technical Data Package will be furnished the Air Force at the conclusion of the contract.

1. Name of Shelter: Imagery Interpretation (USAF) Imagery Augmented Interpretation (USMC), WS-428A

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

USAF, HQ ASD/RWJE (TIPI SPO)

5. Physical Characteristics:

The shelter is constructed of aluminum alloy skins over a foamed plastic core. The maximum exterior dimensions are 8' x 8' x 20' and the minimum interior dimensions are 85" (h) x 91" (w) x 231" (l). The shelter is being designed for a 8,000 pound payload and its weight is estimated at 3,900 pounds maximum. The shelter is designed to interface with either an end-type or under-carriage type transporter to meet Type III mobility requirements. The shelter shall be equipped with jacks, lifting and towing eyes, lifting sling, power and signal cable entry provisions, shock attenuating skids and other standard shelter accessories. The shelter shall also provide electromagnetic radiation attenuation as described in Specification CP103010.

6. Concept of Use:

The shelter is being designed to interface with the Imagery Interpretation equipments being developed by Texas Instruments Inc. for the II Segment of the WS-428A program.

7. Logistical Data:

Four of these shelters are being procured by Texas Instruments from Gichner Mobile Systems for delivery to the USAF in August 1971 (approximately). These shelters will be fully evaluated during Category one and two testing of the II Segment. A complete data package for the shelter is also being procured.

8. Remarks:

The shelter is being designed to meet the environmental requirements of MIL-STD-810B in addition to stringent operational requirements. The specification delineating the shelter's design is CP103010 (USAF).

1. Name of Shelter: Imagery Interpretation Segment, Auxilliary Shelter, WS-428A.

2. Type of Shelter:

Rigid
Expandable

3. Current Status:

Development Stage

4. Responsible Engineering Activity:

USAF, HO ASD/RWJE (TIPI SPO)

5. Physical Characteristics:

The shelter is constructed of aluminum alloy skins over a foamed plastic core. The maximum transport dimensions are 8' x 8' x 20' and the interior expanded (operational mode) dimensions are 85" (h) x 169" (w) x 220" (l). The shelter expands on one side during transformation from the transport to the operational mode. The shelter shall be designed to support a gross payload of 7,000 pounds and its weight shall not exceed 5,500 pounds (all accessories included). The shelter shall be designed to interface with an under-carriage dolly set. The shelter shall be equipped with jacks, lifting and towing eyes, lifting sling, power and signal entry provisions, shock attenuating skids and other standard shelter accessories. The shelter shall also provide electromagnetic radiation attenuation as specified in Specification CP102015.

6. Concept of Use:

The shelter is being designed to interface with the Imagery Interpretation equipments being developed by Texas Instruments Inc. for the II Segment of the WS-428A program. The shelter will serve as an administrative headquarters for each Imagery Interpretation segment.

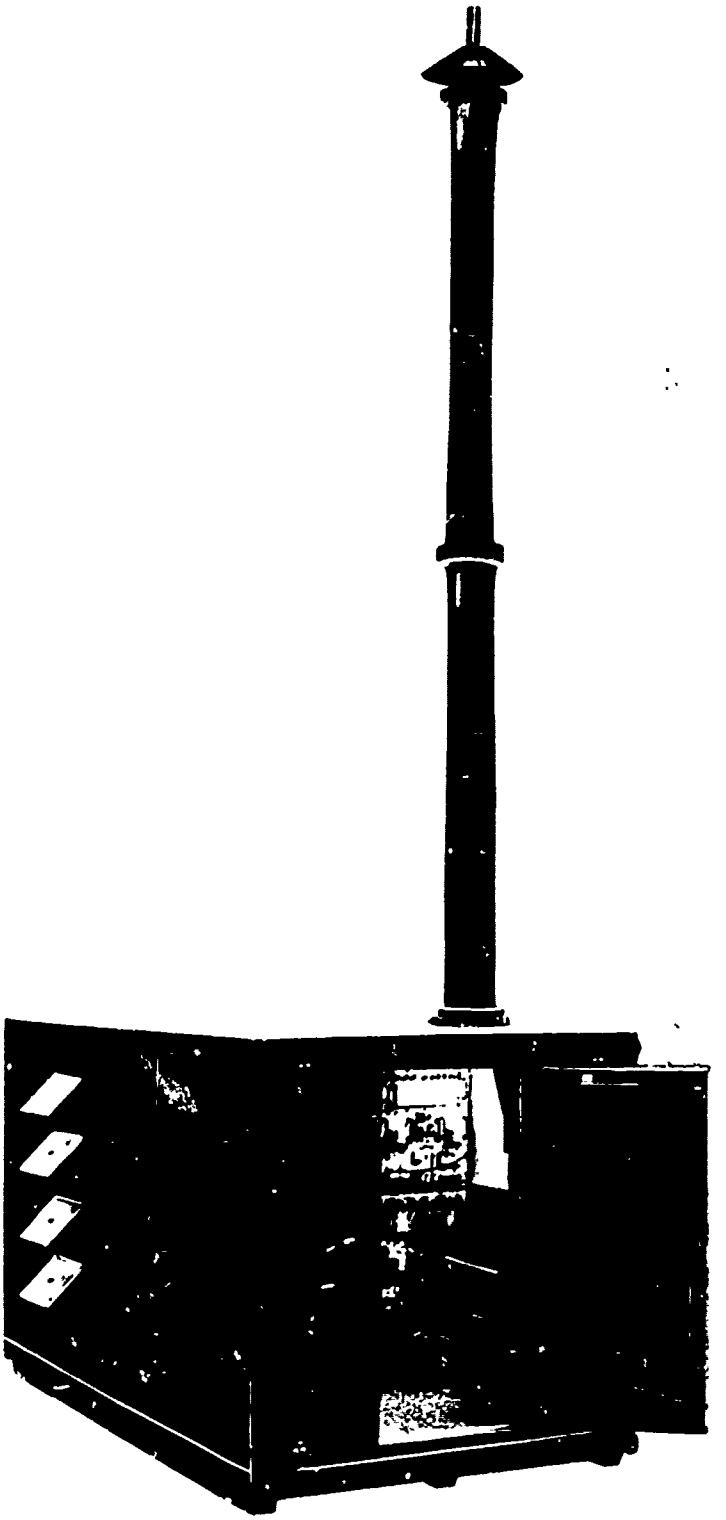
7. Logistical Data:

Two prototype shelters are being procured by Texas Instruments from Gichner Mobile Systems for delivery to the USAF in August 1971. These shelters shall be evaluated during Category one and two testing of the II Segment. A complete data package is also being procured.

8. Remarks:

The shelter is being designed to meet environmental requirements of MIL-STD-810B, in addition to stringent operational requirements. The specification delineating the shelters design is CP102015 (USAF).

U.S. Marine Corps



1. Name of Shelter: Shelter, Electrical Equipment

2. Type of Shelter:

Rigid
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 81" wide, 142" long and 83" high. Power - 6KW, 400 HZ, 120/208 volts. Weight of the shelter is 1,412 pounds.

6. Concepts of Use:

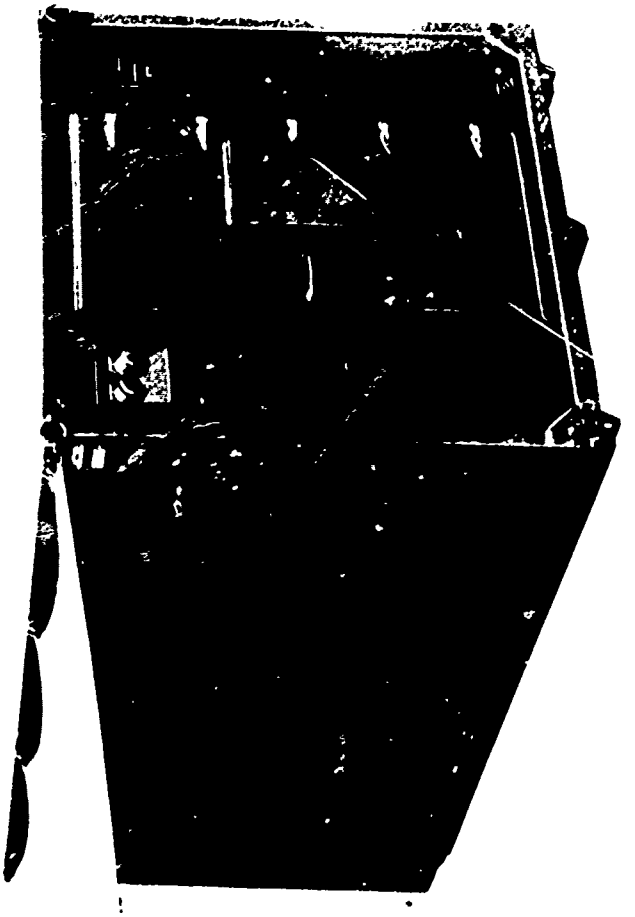
Communication Central AN/TYA-11 (5820-789-0676)

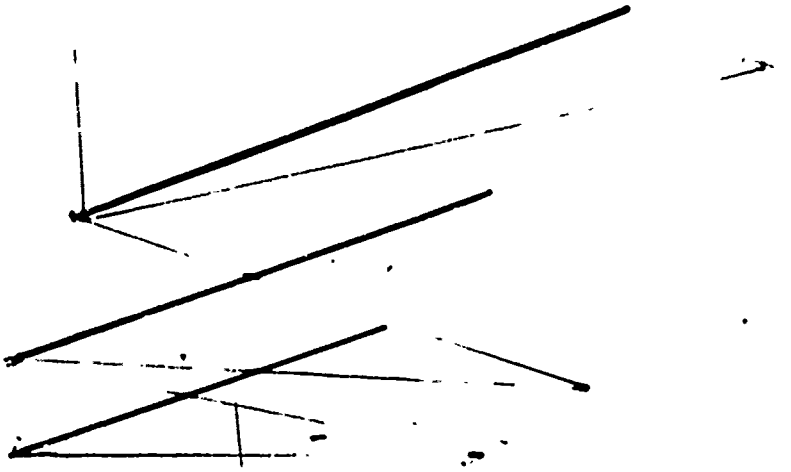
7. Logistical Data:

The FSN for the shelter is 5410-880-3103 and the cost of the shelter is $5,000.00. TAM No. is A2520

8. Remarks:

A technical data package is available.





1. Name of Shelter: Shelter, Electronic Maintenance Support AN/GRM-86

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 87" wide, 146" long and 83" high. Power - 10 KW, 400 HZ, 120/208 volts. Weight of the shelter is 3,100 pounds.

6. Concept of Use:

Maintenance Support for AN/TYQ-2

7. Logistical Data:

The FSN for the shelter is 4940-999-8348. Cost of the shelter is $11,685.00. The TAM No. is A2320.

8. Remarks:

A technical data package is available.

1. Name of Shelter: Shelter, Electronic Maintenance Support AN/GRM-86

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 87" wide, 146" long and 83" high. Power - 10 KW, 400 HZ, 120/208 volts. Weight of the shelter is 3,100 pounds.

6. Concept of Use:

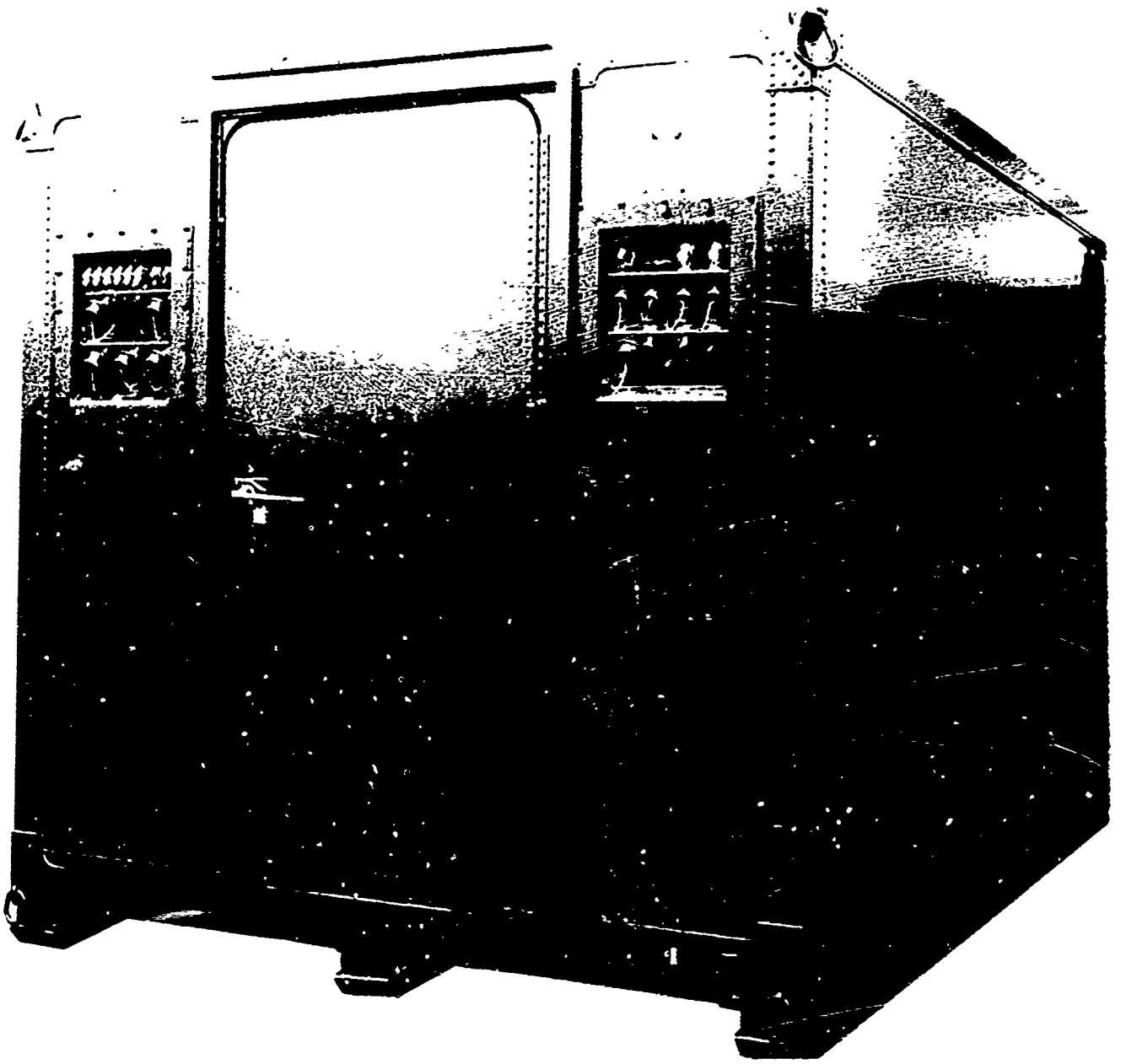
Maintenance Support for AN/TYQ-2

7. Logistical Data:

The FSN for the shelter is 4940-999-8348. Cost of the shelter is $11,685.00. The TAM No. is A2320.

8. Remarks:

A technical data package is available.



1. Name of Shelter: Shelter, Electrical Equipment, S-354

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 83" wide, 142" long and 74" high. Power - 12 KW, 400 HZ, 120/208 volts. Weight of the shelter is 5,000 pounds.

6. Concept of Use:

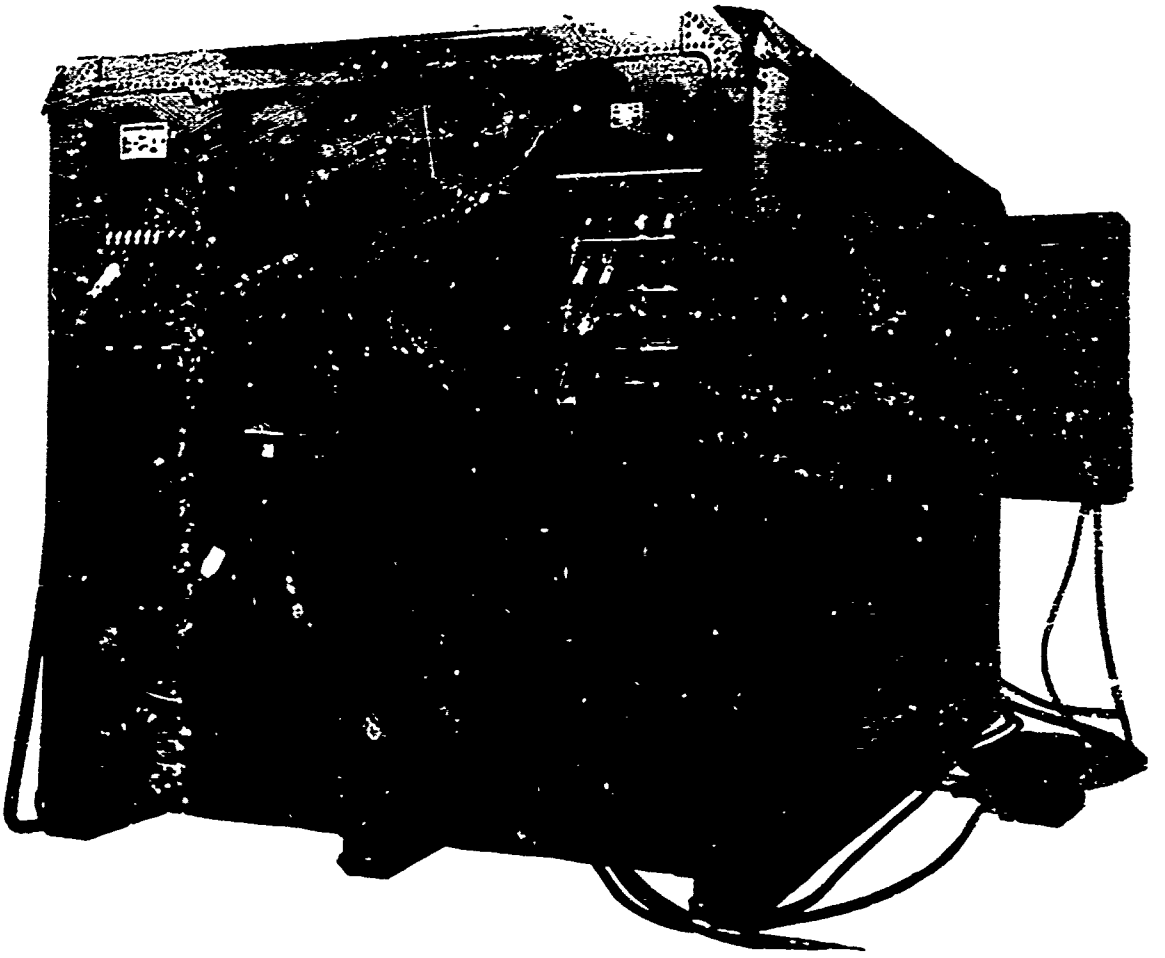
Data Terminal Group AN/TYA-17 (5895-903-1149)

7. Logistical Data:

The TAM No. for the shelter is A2540 and the cost is $33,000.00.

8. Remarks:

A technical data package is available.



1. Name of Shelter: Shelter, Electrical Equipment

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 82" wide, 143" long and 82" high. Power - 12KW, 120/400 HZ, 208 volts. Weight of the shelter is 4,770 pounds.

6. Concept of Use:

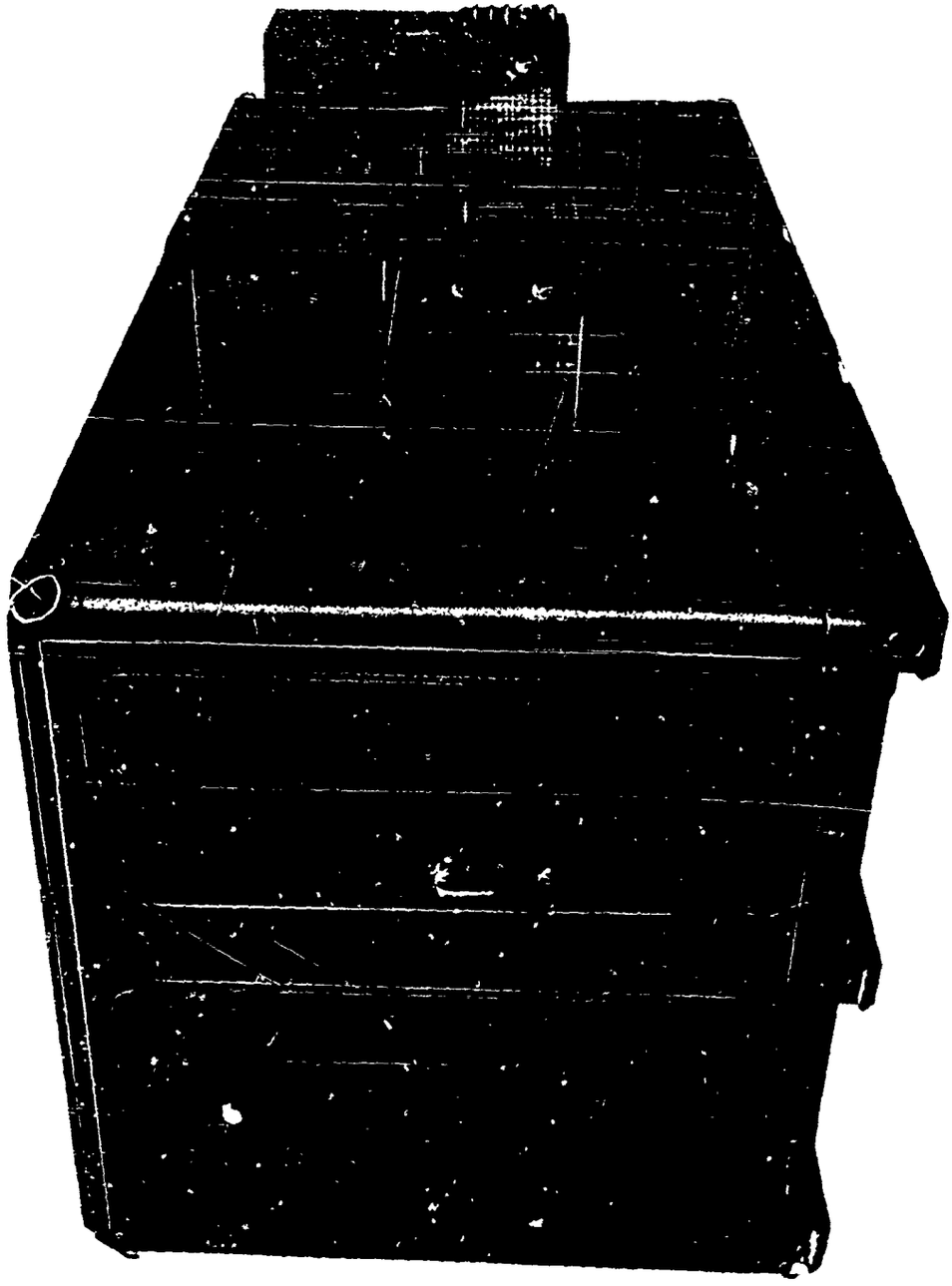
Data Communications Group AN/TYA-19 (5895-903-1148)

7. Logistical Data:

The TAM. No. for the shelter is A2540 and the cost is $33,000.00.

8. Remarks:

A technical data package is available.



1. Name of Shelter: Shelter, Electronic

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 83" wide, 162" long and 83" high. Power - 17.0 KW, 400 HZ, 120/208 volts. Weight of the shelter is 4,950 pounds.

6. Concept of Use:

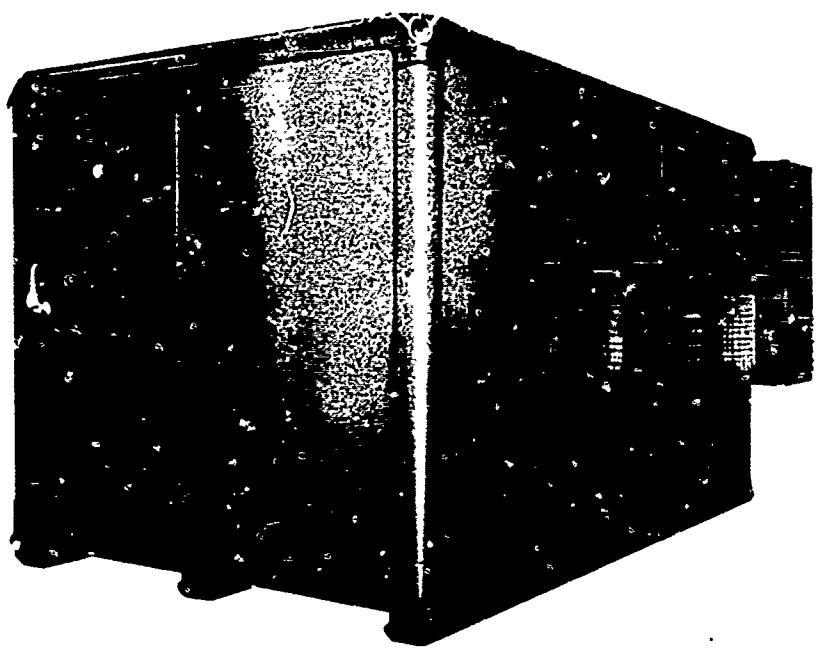
Central Computer Group AN/TYA-5 (5895-884-1776)

7. Logistical Data:

The TAM. No. for the shelter is A2530 and the cost is $33,000.00.

8. Remarks:

A technical data package is available.



1. Name of Shelter: Shelter, Electrical Equipment S-341

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 83" wide, 142" long and 83" high. Power - 15.5 KW, 400 HZ, 120/208 volts. Weight of the shelter is 3,710 pounds.

6. Concept of Use:

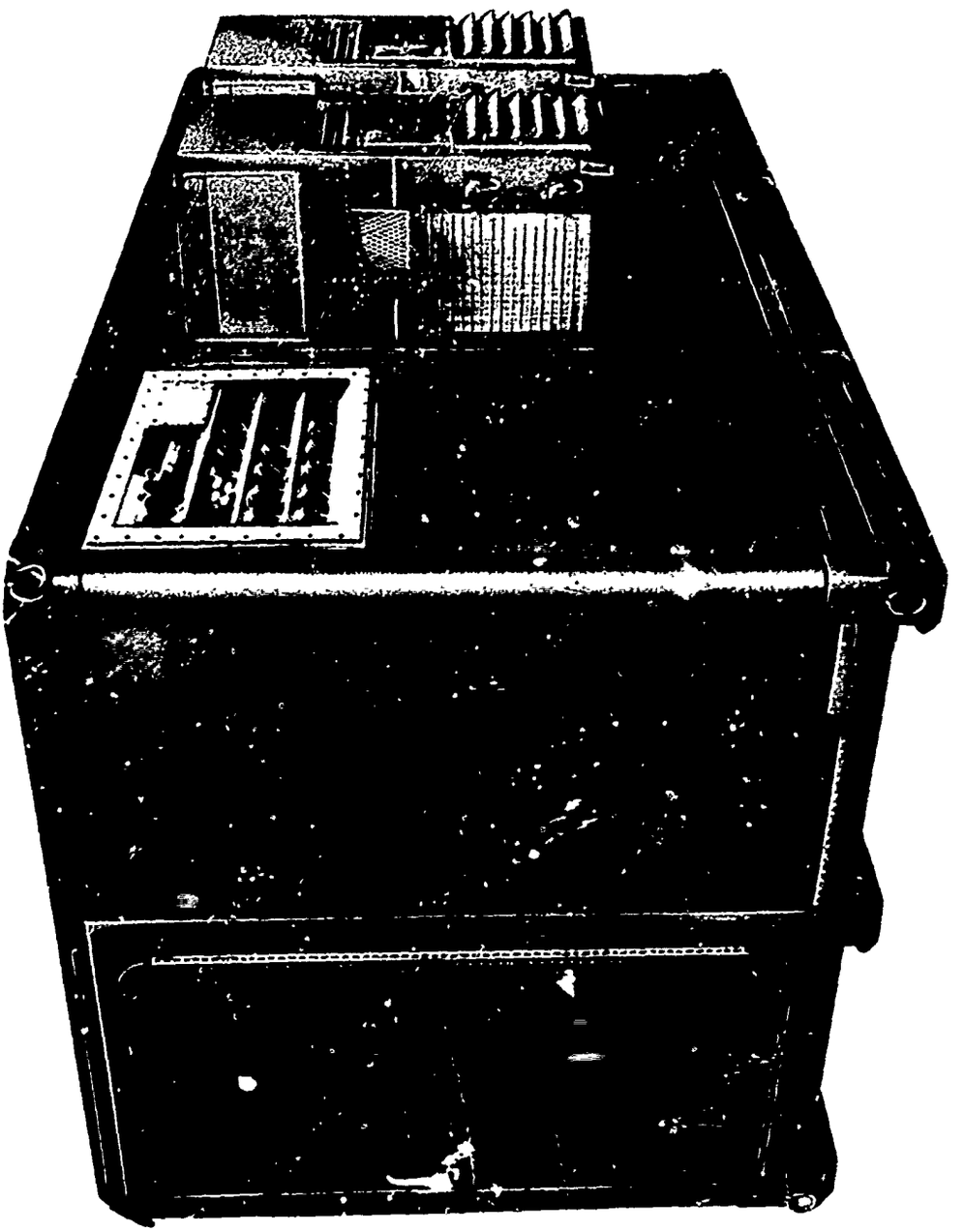
Data Processor Group AN/TYA-6 (5895-884-1775)

7. Logistical Data:

The TAM No. for the shelter is A2530 and the cost is $33,000.00.

8. Remarks:

A technical data package is available.



1. Name of Shelter: Shelter, Electrical Equipment, S-341

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 83" wide, 142" long and 83" high. Power - 16.0 KW, 120/400 HZ, 208 volts. Weight of the shelter is 4,190 pounds.

6. Concept of Use:

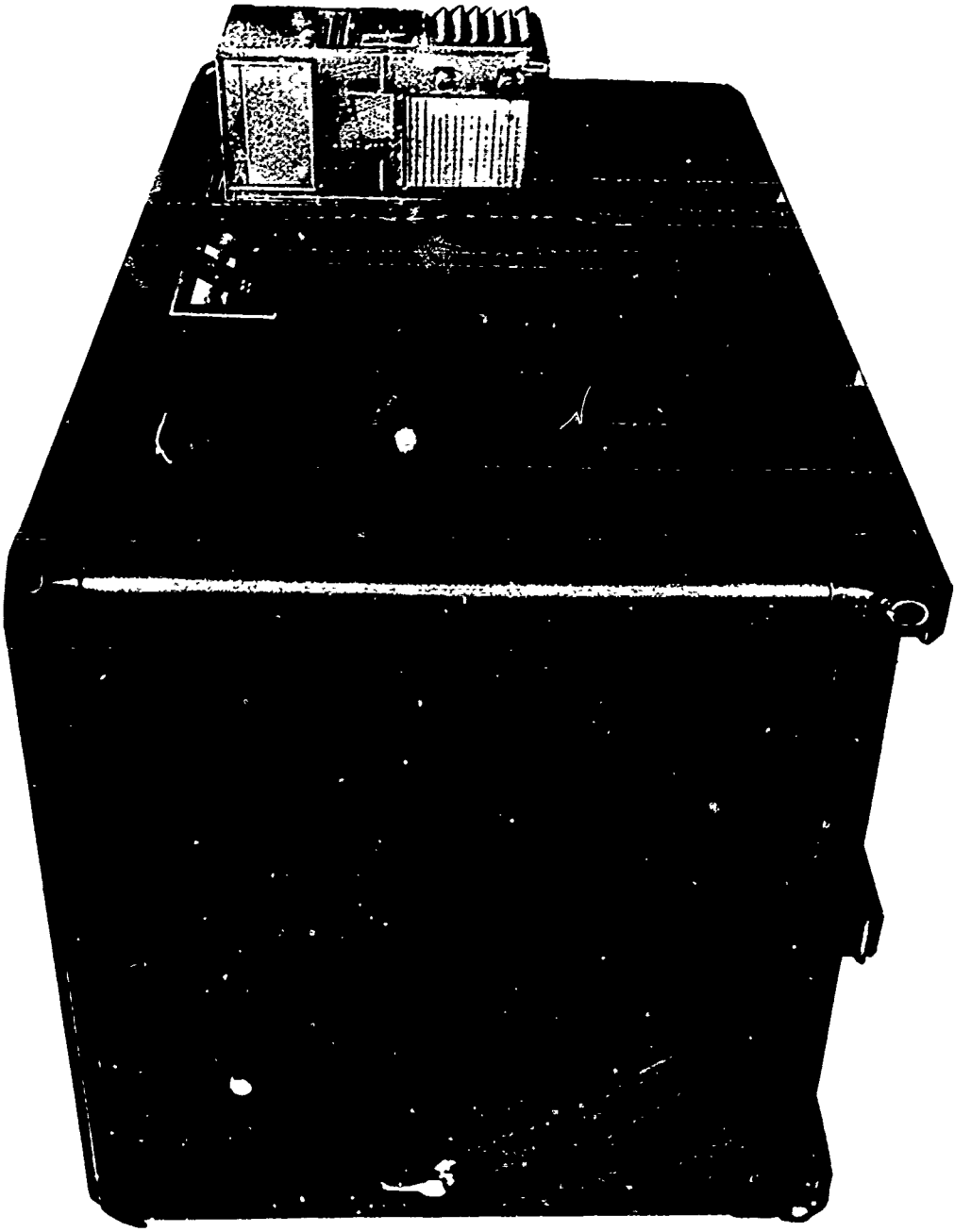
Geographic Generator AN/TYA-7 (5895-884-1774)

7. Logistical Data:

The TAM No. is A2530 and the cost is $33,000.00.

8. Remarks:

A technical data package is available.



1. Name of Shelter: Shelter, Electrical Equipment, S-355

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 83" wide, 142" long and 83" high. Power - 7.9 KW, 400 HZ and 120/208 volts. Weight of the shelter is 2,920 pounds.

6. Concept of Use:

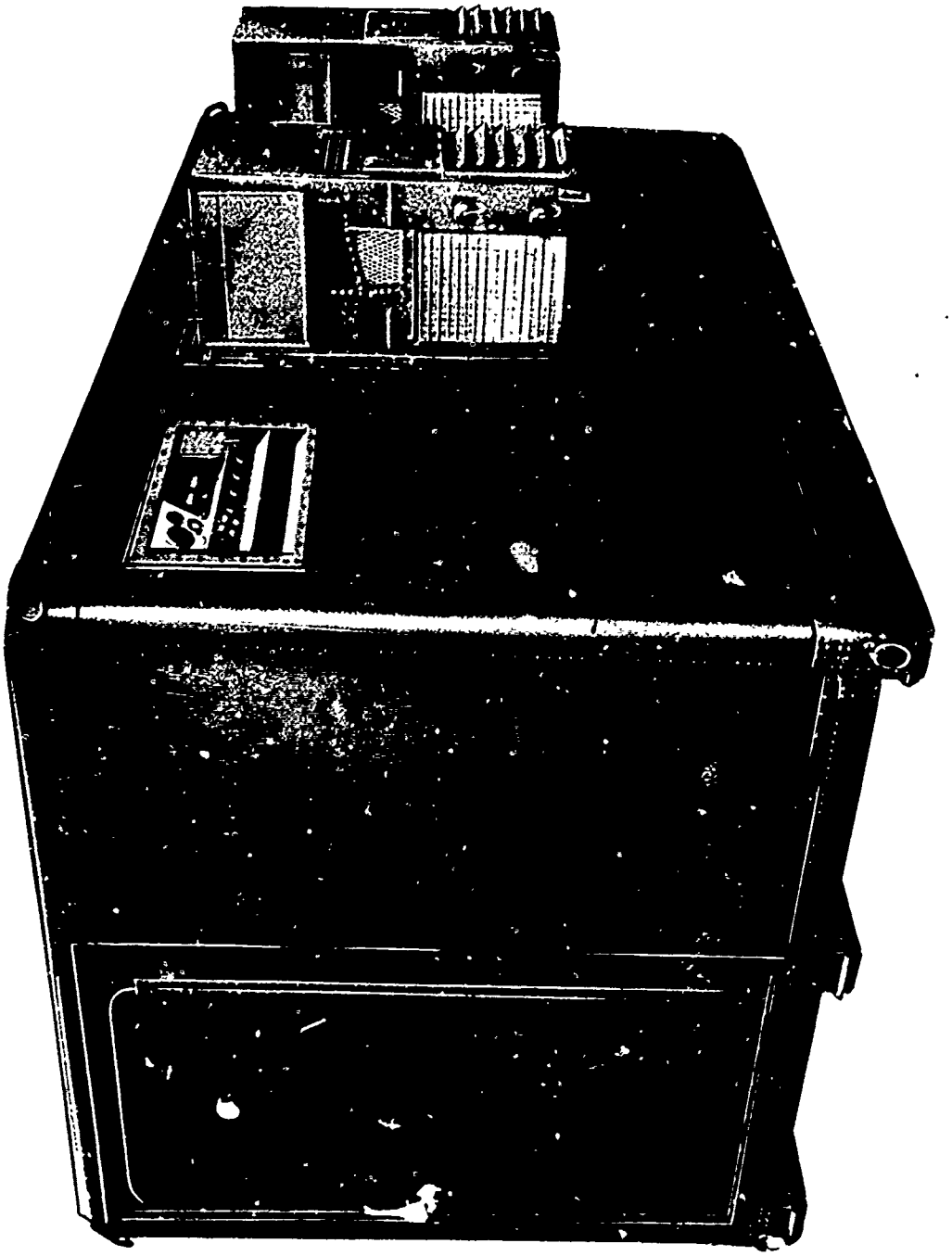
Photographic/Transport Group AN/TYA-25 (5895-884-1778)

7. Logistical Data:

The TAM No. is A2530 and the cost of the shelter is $33,000.00.

8. Remarks:

A technical data package is available.



1. Name of Shelter: Shelter, Electrical Equipment, S-342

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 83" wide, 142" long and 83" high. Power - 12.0 KW, 400 HZ and 120/208 volts. Weight of the shelter is 3,900 pounds.

6. Concept of Use:

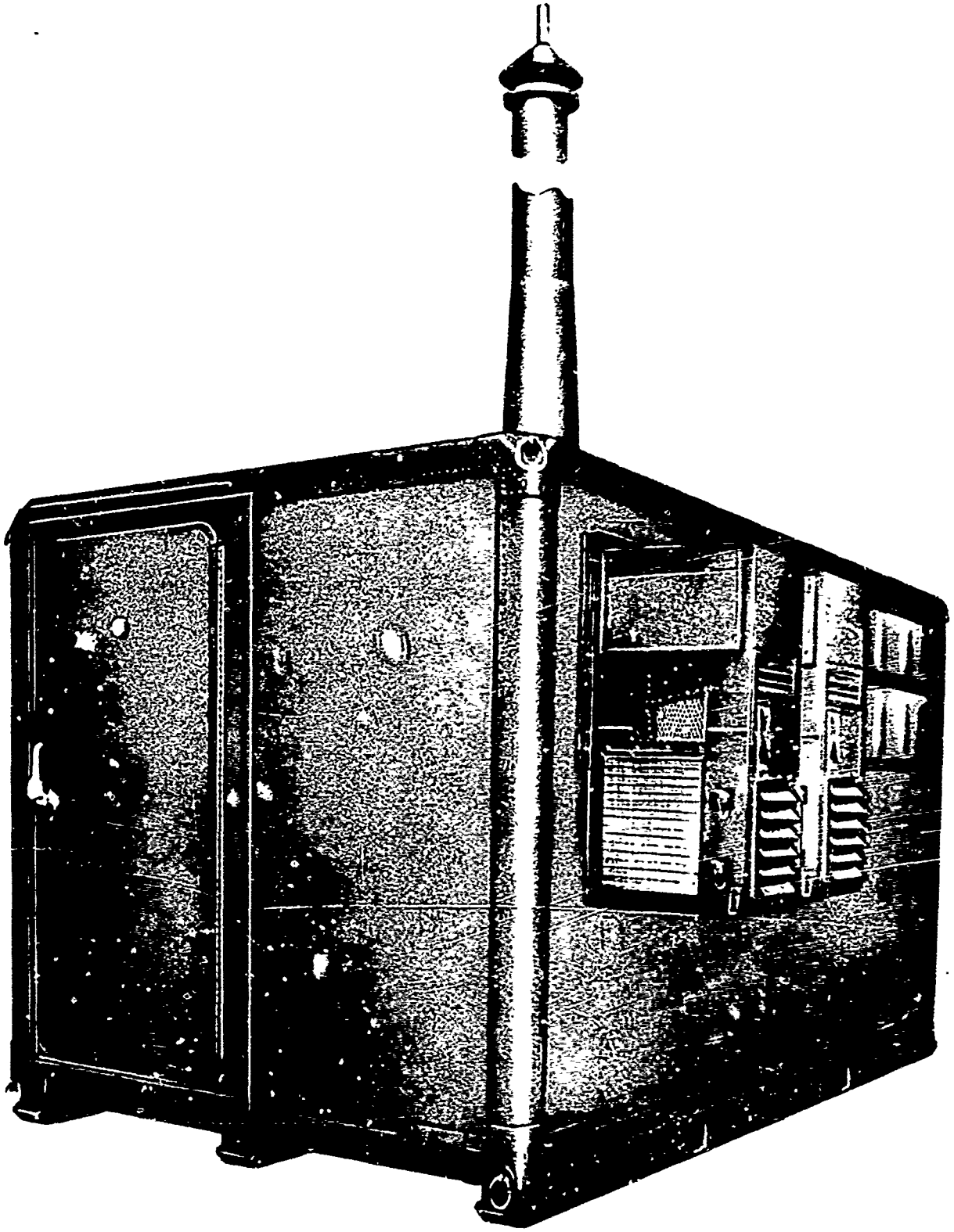
Maintenance Group AN/TYA-27 (5895-884-1779)

7. Logistical Data:

The TAM No. is A2530 and the cost of the shelter is $33,000.00.

8. Remarks:

A technical data package is available.



1. Name of Shelter: Shelter, Electrical Equipment, S-341

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 83" wide, 142" long and 83" high. Power - 15.5 KW, 400 HZ and 120/208 volts. Weight of the shelter is 4,510 pounds.

6. Concept of Use:

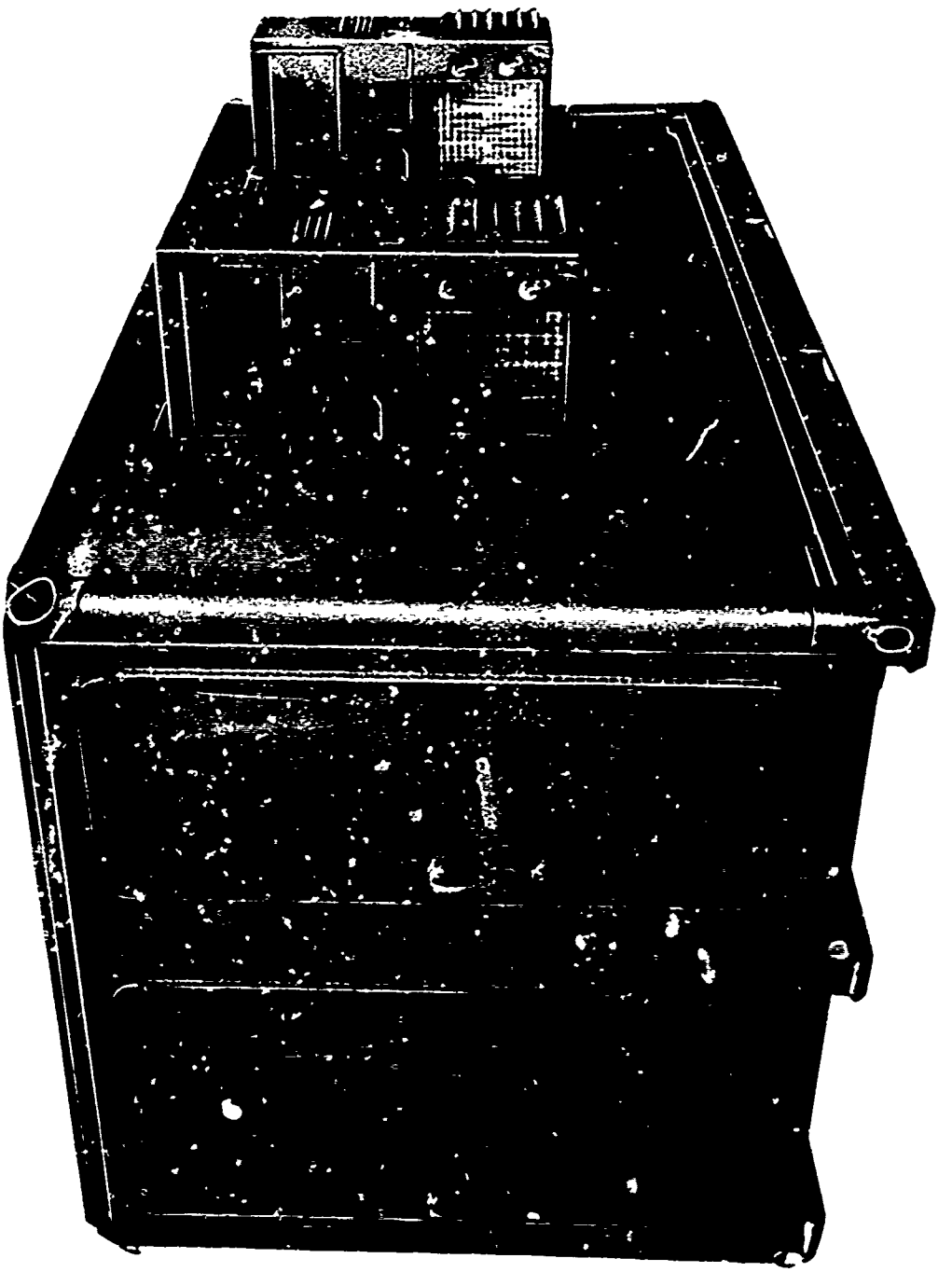
Communications Group AN/TYA-12 (5895-900-7892)

7. Logistical Data:

The TAM No. is A2530 and the cost of the shelter is $33,000.00.

8. Remarks:

A technical data package is available.



1. Name of Shelter: Shelter, Electrical Equipment, S-341

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 83" wide, 142" long and 83" high. Power - 15.5 KW, 400 HZ, and 120/208 volts. Weight of the shelter is 4,215 pounds.

6. Concept of Use:

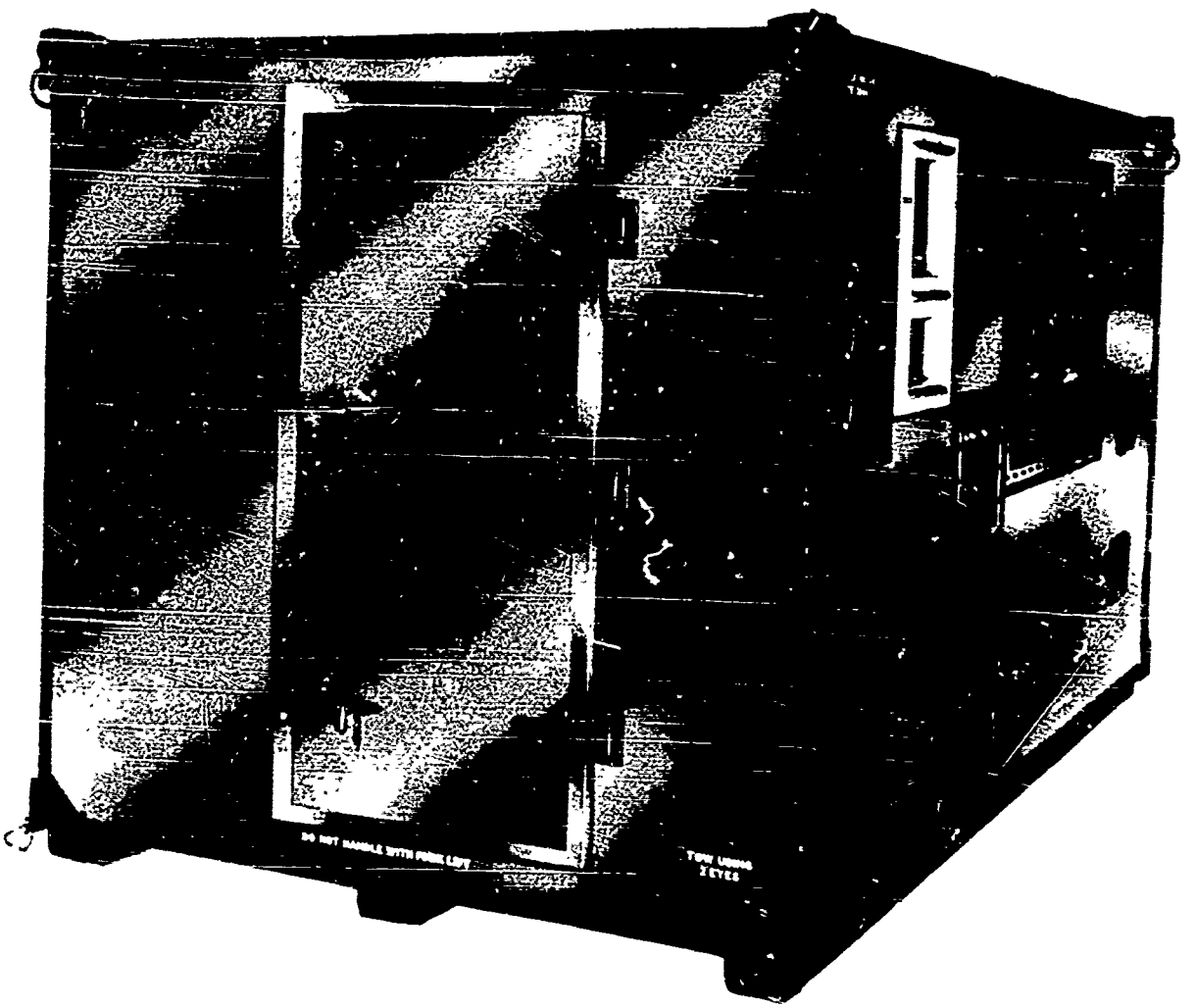
3D Radar Processing Group AN/TYA-18 (5895-999-6956)

7. Logistical Data:

The TAM No. is A2530 and the cost of the shelter is $33,000.00.

8. Remarks:

A technical data package is available.



1. Name of Shelter: Shelter, Electrical Equipment, S-141/G

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 83" wide, 142" long and 83" high. Power - 14.8 KW, 400 HZ, 120/208 volts. Weight of the shelter is 4,844 pounds.

6. Concept of Use:

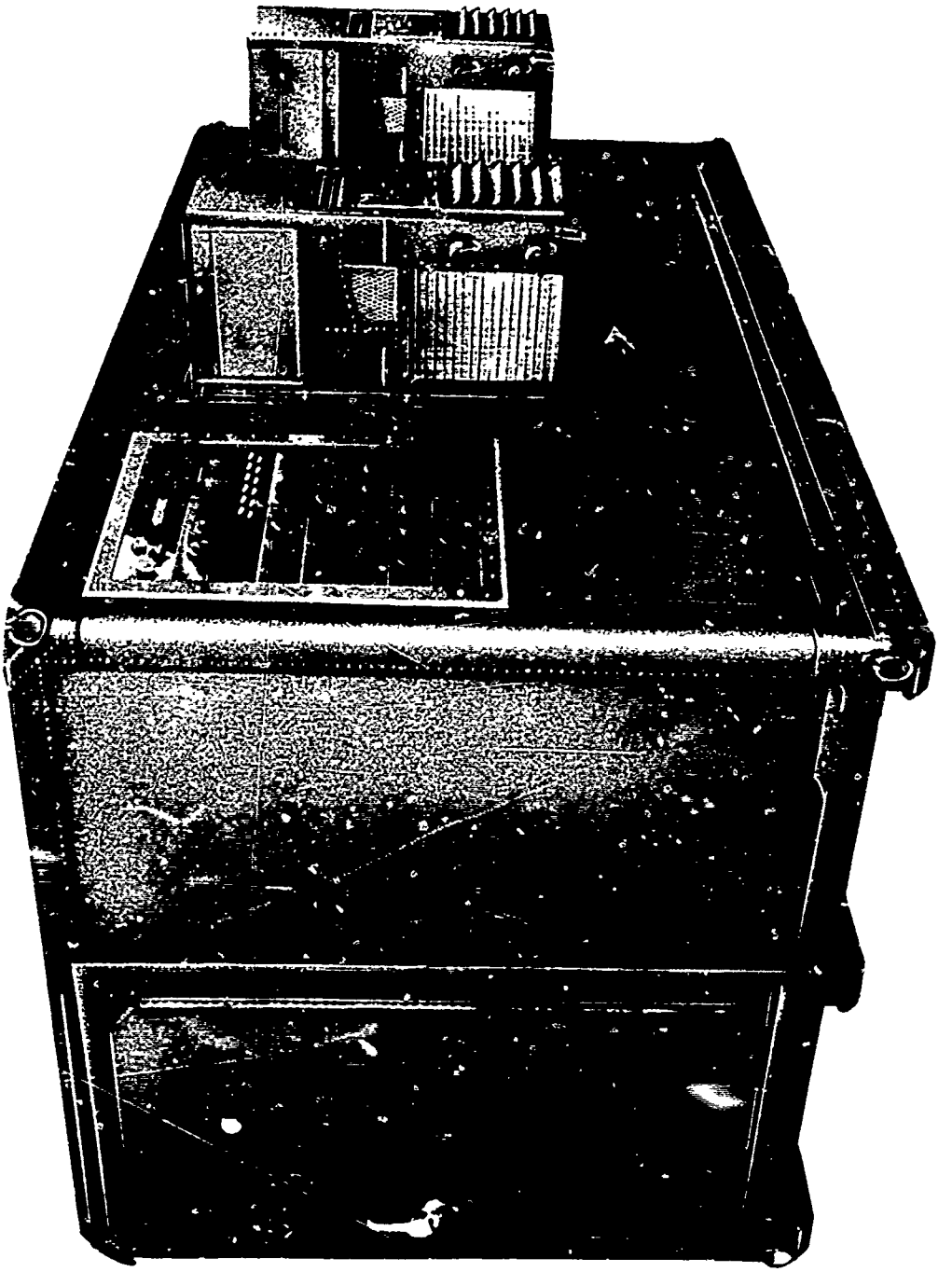
Compatibility Computer Group AN/TYA-20 (7740-832-8918)

7. Logistical Data:

The FSN for the shelter is 5410-752-9698. The TAM No. for the shelter is A2540 and the cost is $47,390.00.

8. Remarks:

A technical data package is available.



1. Name of Shelter: Shelter, Electrical Equipment, S-341

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 83" wide, 142" long and 83" high. Power - 18.0 KW, 400 HZ and 120/208 volts. Weight of the shelter is 5,130 pounds.

6. Concept of Use:

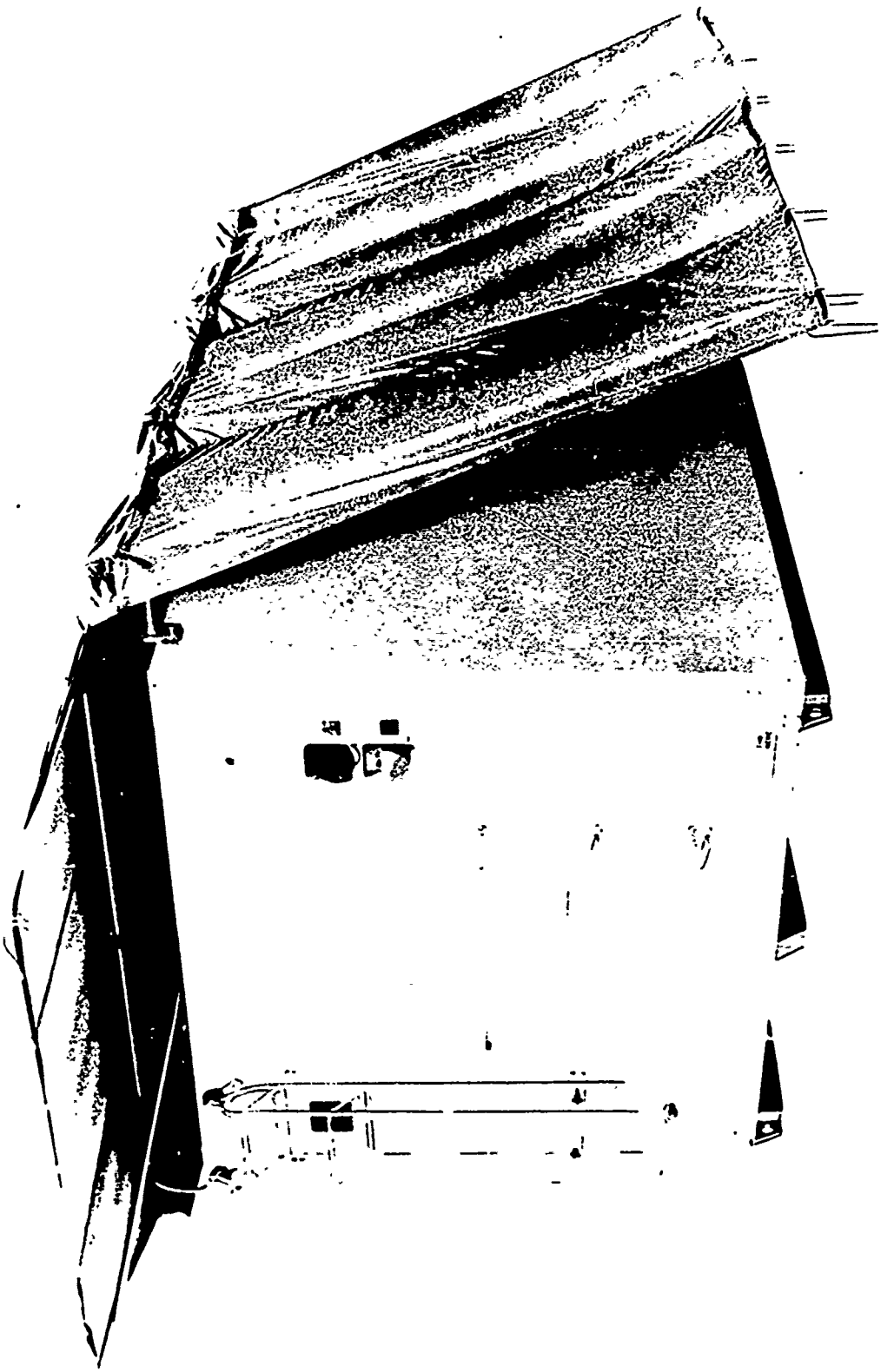
Operations Group AN/TYA-9 (5895-900-7893)

7. Logistical Data:

The TAM No. is A2530 and the cost of the shelter is $33,000.00.

8. Remarks:

A technical data package is available.



1. Name of Shelter: Shelter, Electrical Equipment (2/TSM-60)

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 81" wide, 142" long and 83" high. Power - 30 KW, 60/400 HZ, and 120/208 volts. Weight of the shelter is 5,400 pounds.

6. Concept of Use:

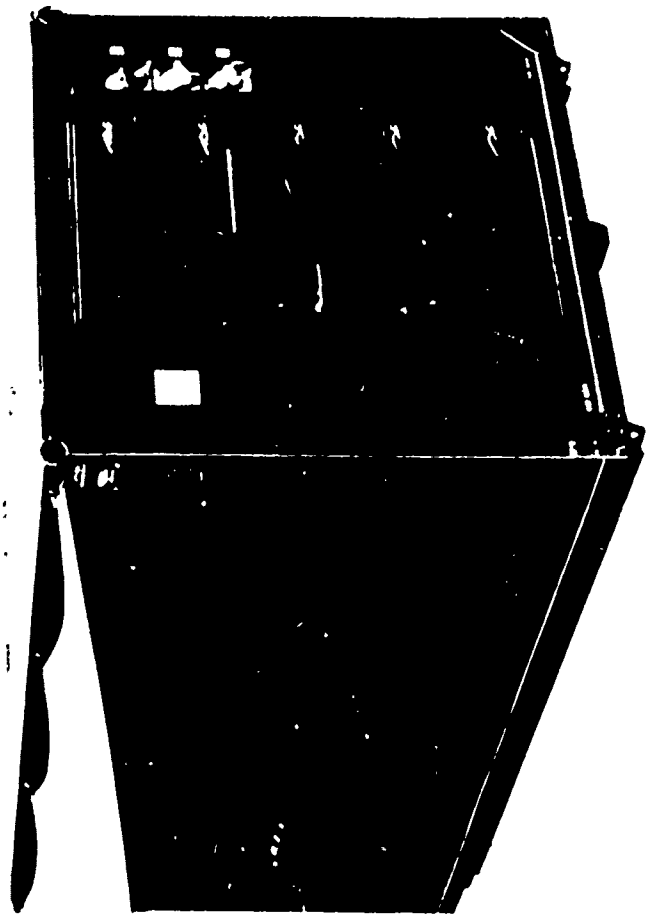
Calibration Complex AN/TSM-60 (6625-066-4383)

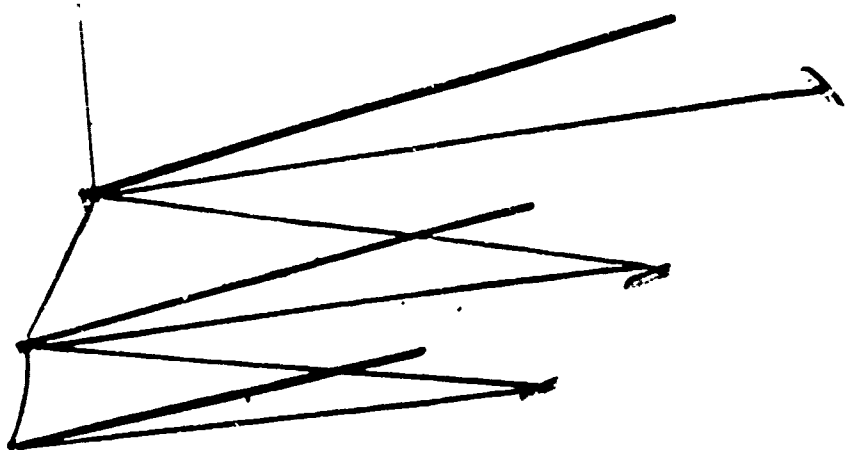
7. Logistical Data:

The FSN for the shelter is 5410-930-7189 and the cost of the shelter is $67,588.00.

8. Remarks:

A technical data package is available. The item is currently being rebuilt to house mechanical calibration instruments only.





1. Name of Shelter: Shelter, Electrical Equipment

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 87" wide, 146" long and 83" high. Power - Model #DV--344 B/G, 16 KW and 120/208 volts. Weight of the shelter is 6,140 pounds.

6. Concept of Use:

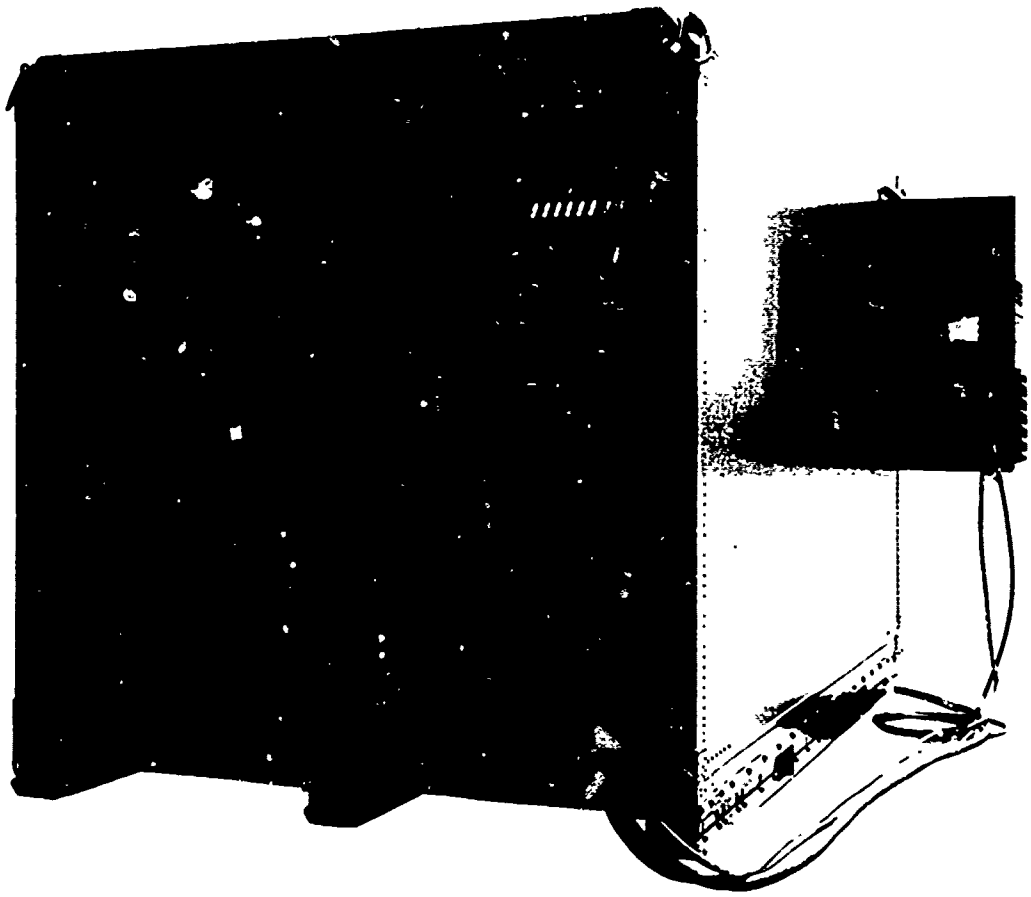
Shop, Electronic AN/GRM-82 (4940-912-3458)

7. Logistical Data:

The FSN for the shelter is 5410-830-0143 and the cost of the shelter is $1,500.00.

8. Remarks:

A technical data package is available.



1. Name of Shelter: Shelter, Electrical Equipment, S-355

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 83" wide, 142" long and 82" high. Power - 7 KW, 400 HZ, and 120/208 volts. Weight of the shelter is 4,630 pounds.

6. Concept of Use:

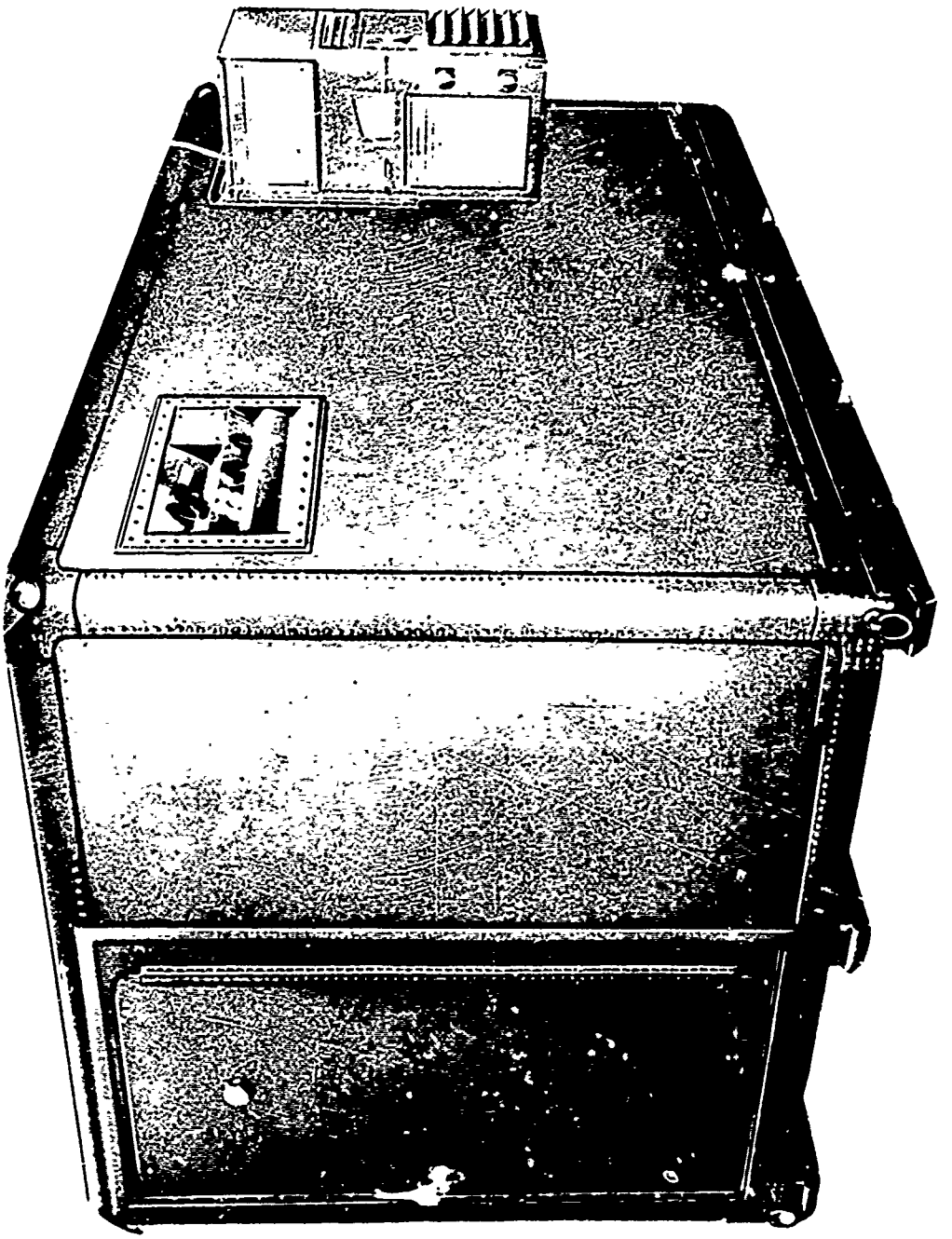
Maintenance Transport Group AN/TYA-24 (5895-999-6952)

7. Logistical Data:

The TAM No. is A2540 and the cost of the shelter is $33,000.00.

8. Remarks:

A technical data package is available.



1. Name of Shelter: Shelter, Electrical Equipment, S-341

2. Type of Shelter:

Rigid,
Non-Expandable

3. Current Status:

Standard

4. Responsible Engineering Activity:

U. S. Marine Corps

5. Physical Characteristics:

The shelter is made with an aluminum frame and has an aluminum skin. The dimensions of the shelter are 83" wide, 142" long and 83" high. Power - 15.5 KW, 400 HZ, 120/208 volts. Weight of the shelter is 3,520 pounds.

6. Concept of Use:

Unit Test Group AN/TYA-23 (5895-884-1773)

7. Logistical Data:

The TAM No. is A2530 and the cost of the shelter is $33,000.00.

8. Remarks:

A technical data package is available.

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